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ABSTRACT

Intended to provide an overview of the approaches that have been developed to collect data for environmental education, this publication presents sample pages from over 50 instruments used in evaluation and needs assessment studies. Provided for each entry is a reference so that a complete copy of the instrument may be obtained. Examples are grouped under six study topic headings: students, teachers, school districts, parent perceptions, community, and projects. (Author/WB)

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ENVIRONMENTAL EDUCATION

NEEDS ASSESSMENT AND EVALUATION MANUAL

volume 2

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ENVIRONMENTAL EDUCATION

NEEDS ASSESSMENT

AND

EVALUATION MANUAL

VOLUME 2

SAMPLE INSTRUMENTS

prepared by

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PLANNING AND EVALUATION UNIT
COLORADO DEPARTMENT OF EDUCATION
DENVER, COLORADO

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PREFACE TO VOLUME 2

This collection of instruments was compiled to accompany Volume 1 of the Environmental Education Needs Assessment and Evaluation Manual. In most cases only samples pages of the instruments contained in source documents are included.

HOW TO USE

1. Decide the kind of needs assessment and/or evaluation you wish to use and decide from whom you intend to collect information.
2. Examine the "Instrument Location Index" on page iii.
3. Identify the "Document Source Numbers" that match your interests.
4. Through cross-reference, locate the pages for selected instrument sources (See pages iii, iv, v and vi).
5. Examine the sample pages of instruments.
6. If appropriate, locate the complete instrument and, if desired, program reports presenting data analyses. You can find many of these reports in ERIC microfilm files.
7. Modify the instrument to serve your requirements (or use if considered to be appropriate).

INTRODUCTION TO INSTRUMENTS

The instrument samples are intended as an aid for evaluating environmental education programs. Because many of the instruments can be used for both needs assessment and program evaluation, no attempt is made to place instruments in either of these two categories.

Each sample instrument is preceded by an instrument reference page. A reference is provided so you can obtain access to the full copy of the material of greatest potential use for your program. Most references are to project reports that contain several instruments. In most cases, only sample pages of selected instruments are included in this manual.

The instrument index (p. *iii*) is intended to help you locate instruments that can be used with specific target groups. In each case, a reference number is given to a specific instrument. You should examine the sample pages of selected instruments to determine if they are of interest. The six major headings are intended to help you locate instruments designed to get information about:

- I. STUDENTS
- II. TEACHERS
- III. SCHOOL DISTRICTS
- IV. PARENT PERCEPTIONS
- V. COMMUNITY
- VI. PROJECTS

Note - The ERIC document number is the six digit number (example: ED 106 431) preceding most references. It is a good idea to review the full instrument at an ERIC microfiche collection center. The microfiche copy will give specific instructions for ordering printed copies of the document containing the instruments. Many of the documents contain data summaries that can be used for comparison purposes.

INSTRUMENT LOCATION INDEX

Information on:

Document Source Number

I. Student

- A. Tests ----- 10-A, 14-A, 16-F, 22-A & B
24-A, B & C
- B. Attitudes ----- 2-A, 10-B & C, 11-A,
24-A, B, C
- C. Logs, checklists, teacher ratings -- 1-A & B, 5-A, 8-A, 16-D, 21-D
- D. Perceived Needs ----- 3-B
- E. Reaction Forms ----- 7-D, 9-A, 21-E

II. Teacher

- A. Tests ----- 16-A
- B. Attitudes, or General Information -- 12-C, 16-B, 19-A
- C. Needs ----- 6-A, 7-B
- D. Other, questionnaires ----- 18-D, 23-A

III. School District (Administrators)

- A. Needs ----- 3-A, 6-A, 12-A & B
- B. Existing Program ----- 7-A, 12-B, 13-A, 18-A

IV. Parent Perceptions ----- 7-E, 18-B, 21-F, 23-B

V. Community ----- 4-A, 12-F & G, 17-A, 18-C

VI. Projects, Materials, etc.

- A. Records ----- 8-B, 15-B, 16-C
- B. Workshop reactions ----- 15-C
- C. Other reaction forms ----- 7-B & C, 12-D & E, 15-A, 20-A
21-C
- D. Other documents ----- 21-A, 25-A, B & C

LIST OF SAMPLE INSTRUMENTS

<u>Document Source</u>	<u>Title</u>	<u>Page</u>
1	Balarat Outdoor School	
	- A. Checklist for Skills and Accomplishments	2
	- B. Pupil Evaluation	3
2	Billings Environmental Attitude Assessment Instrument	
	- A. Billings Environmental Attitude Test	6
3	Colorado R.S.V.P.: Your Environment	
	- A. Conservation Education Survey School District Form	10
	- B. Student Conservation Education Survey	12
4	Doane College, Quality of Life Participant Reaction Survey	
	- A. Participant Reaction Survey Fall Symposium-Workshops	16
5	Guam, Environmental Awareness in Elementary Schools	
	- A. Activities Checklist	20
	Grade 1	
	Grade 6	
6	Iowa, R.S.V.P.: Your Environment	
	- A. Iowa Environmental Education Assessment	24
7	Los Angeles County: Outdoor Environmental Education	
	- A. Resident Outdoor Environmental Education Program Self-Appraisal Certification form . . .	28
	- B. Resident Outdoor Environmental Education Program Opinion Questionnaire	32
	- C. Outdoor School Classroom Teacher Questionnaire	36
	- D. Outdoor School Pupil Questionnaire	37
	- E. Outdoor School Parent Questionnaire	38
8	Michigan University: Environmental Learnings Score Card	
	- A. Environmental Learnings Scorecard (student log)	40
	- B. Camp Summary Sheet for Environmental Education Scorecard (teacher report)	45
9	Michigan University, Youth Conservation Corps	
	- A. 1973 Youth Conservation Corps End of Camp Booklet	50

List of Sample Instruments

<u>Document Source</u>	<u>Title</u>	<u>Page</u>
10	Model for Evaluation	
	- A. Sample Test Items	60
	- B. Attitude Survey (Likert type)	62
	- C. Attitude Survey (semantic differential type)	64
11	Montana Educational Assessment Program	
	- A. Montana Educational Assessment Program Test Book 2, Grade 6	66
12	Minnesota Environmental Education Council	
	- A. School District Interest Survey	76
	- B. School District Questionnaire	77
	- C. Trial Test Survey: Secondary Units	80
	- D. Part II: Secondary E.E. Unit	82
	- E. Adventure: Environment Teacher Questionnaire	85
	- F. Survey of Voluntary Organizations with Environmental Concerns	87
	- G. Survey of Municipalities	90
13	National Education Association	
	- A. Survey of Environmental, Conservation, and Outdoor Education	94
14	New Jersey Council for Environmental Education	
	- A. Objectives and Sample Test Items	100
15	Newsletter Questionnaire	
	- A. Environmental Quality Newsletter Questionnaire	108
16	Parkway Environmental Ecological Program	
	- A. Environmental Education Cognitive Evaluation (Teacher Knowledge Test)	112
	- B. Attitude Cluster Survey	114
	- C. Student Post-Test Results Summary Sheet	116
	- D. Environmental Attitudes Pre- and Post- Resident Camp Evaluation (teacher rating) . .	117
	- E. Environmental Ecological Education Project Trout Lodge, Pre-Post Test	118
17	Rhode Island Water Resources Center	
	- A. Community Questionnaire	122

List of Sample Instructions

<u>Document Source</u>	<u>Title</u>	<u>Page</u>
18	South Dakota Administrators Environmental Manual	
	- A. Administrator's Staff Project Evaluation (Pre-Test)	126
	- B. Parent Self-Evaluation	128
	- C. Adult Self-Study on Environmental Education . .	130
	- D. Teacher's Self-Evaluation	132
19	Pennsylvania Elementary Teacher's Opinions	
	- A. Teacher's Opinions	136
20	Tomkins-Seneca-Tioga Board of Cooperative Services	
	- A. School Staff Questionnaire	140
21	Washington CISPUS Evaluation Kit	
	- A. General Plan	142
	- B. Teacher's Log	144
	- C. Kid's Expectations Upon Arriving at Camp . . .	145
	- D. Kid's Closing Assessment	146
	- E. A parents Evaluation	147
22	Willoughby-Eastlake	
	- A. Kindergarten through Second Grade Test	150
	- B. Third and Fourth Grade Level Test	156
23	Wisconsin University Project ICE	
	- A. ICE Teacher Feedback Form	164
	- B. Parent Reaction Form	167
24	Wisconsin Project ICE	
	- A. Environmental Consortium Inventory Form K-4 (knowledge and attitude)	170
	- B. Environmental Consortium Inventory Form 5-8 (knowledge and attitude)	172
	- C. Environmental Consortium Inventory Form 9-12 (knowledge and attitude)	175
25	Colorado Springs Senior Seminar	
	- A. Suggestions for Journal Entries	178
	- B. Different Styles for Writing in Your Journal	180
	- C. Brainstorming Rules	181

DOCUMENT SOURCE NUMBER: 1

Title: Balarat Outdoor School

Reference: Jim Wright, Ph.D.
Balarat Site Manager
Denver Public Schools
900 Grant Street
Denver, Colorado 80203

Instruments:

Keyed to
Instrument
Location Index

A. Checklist for Skills and Accomplishments	I C	complete
B. Pupil Evaluation	I C	complete

BALARAT OUTDOOR SCHOOL

Check List for Skills and Accomplishments

SCHOOL _____ TEACHER _____ DATE _____

[illegible]

PUPIL EVALUATION

NOTE: May be used by classroom teacher and/or Balarat Staff.

School _____ Evaluator _____

Please evaluate the below named student on his or her performance during his or her stay at Balarat. Rate each individual as compared to the total group or team. See the back of this page for clarification on points of evaluation. Indicate by the following numbers the degree of pupil performance.

1. very low 2. low 3. average 4. high 5. very high

POINTS OF EVALUATION

[illegible]

DOCUMENT SOURCE NUMBER: 2

Title: Billings Environmental Attitude Assessment Instrument

Reference: Billings Environmental Attitude Assessment Instrument
Dr. Thomas T. Zwick
Physical Science Department
Eastern Montana College
Billings, Montana 59101

Instruments:

Keyed to
Instrument
Location Index

A. Billings Environmental Attitude Test

I B

complete

Administration of the Billings Environmental
Attitude Assessment Instrument

Today you are going to be asked to respond to a number of questions. There are no right or wrong answers to these questions. The results of these questions will in no way affect the grade that you receive in this course. It is important that you answer all questions. At no time should you talk to anyone else in the room during the test. If you have a question, raise your hand and I will help you.

When you receive your test booklet, remove the answer sheet and place your name in the space provided. Do not open the test booklet.

After reading the statements in the test booklet, you may find that you agree with some and disagree with others. After you have read each statement, determine whether or not you strongly disagree or strongly agree.

Using only a pencil, darken the space on the answer sheet that indicates your choice.

Example:

1. If you strongly disagree
 2. If you mildly disagree
 3. If you choose to remain neutral
 4. If you mildly agree
 5. If you strongly agree
00. I would like to have a new bicycle.

1 2 3 4 5

Billings Environmental Attitude
Assessment Instrument

1. A scientist is responsible for the life of the specimens with which he is working.
2. I feel that the government should construct more dams on United States rivers.
3. Areas along streams and ponds should be sprayed with insecticides.
4. It is important to me to fix a leaky faucet in our house.
5. I often wonder why animals dig holes in the ground.
6. I do not enjoy studying different plants.
7. There are a lot of pleasing things to do at a stream or pond.
8. I would rather see a deer in a forest than in a zoo.
9. I don't care to hear birds singing.
10. Whenever I walk along a stream or pond, I wonder what kind of animal made the tracks which I observe.
11. I enjoy looking at the different types of nests that birds build.
12. I have never observed anything interesting in a pond.
13. Man does not have to worry about food chains.
14. I like to pretend that I am a wild animal.
15. I like to collect different types of rocks.
16. I do not enjoy writing stories about animals.
17. I like to hear the wind rustling the leaves on the trees.
18. I like to observe differences among plants.
19. I enjoy writing stories about rocks.
20. I find no enjoyment in talking to other students about the things, in nature, which I have observed.
21. I often observe man's impact on the environment.

22. I like to read articles on environmental sciences in the newspapers or magazines.
23. I like to watch television programs like "The Wild Kingdom" and National Geographic specials.
24. I do not care to learn more about the natural environment.
25. I enjoy collecting science data from experience.
26. I like to work with other students on science projects.
27. I enjoy the smell of wild flowers.
28. I do not like to walk in forests.
29. I would like to learn more about soils.
30. I enjoy being out-of-doors.
31. Man, I do not believe, needs to worry about the environment.
32. I would like to become an environmental scientist.
33. Environmental studies are not worth the time and effort.
34. I enjoy reading stories about animals.
35. I am afraid of insects.
36. I often notice temperature differences on certain days.
37. I do not enjoy making graphs of data that I have collected from observations about my environment.
38. I often wonder about the impact that different kinds of organisms have on the environment.
39. It is not important to me to observe the interdependence of plants and animals.
40. I would like to make insect collections.
41. I think that it would be fun to make a notebook containing sketches of animal tracks.
42. I would enjoy making a plant collection.

DOCUMENT SOURCE NUMBER: 3

Title: Colorado R.S.V.P.: Your Environment

Reference: Colorado Department of Education
School Improvement & Leadership Services
201 E. Colfax
Denver, Colorado 80203

Instruments:

Keyed to
Instrument
Location Index

- | | | |
|--|-------|--------------|
| A. Conservation Education Survey
School District Form | III A | sample pages |
| B. Student Conservation Education Survey | I D | sample pages |

CONSERVATION EDUCATION SURVEY
School District Form

Name of School District _____

Name of Person Reporting _____ Position _____

Date _____

- I. THE FOLLOWING CONSERVATION EDUCATION ISSUES AND CONCEPTS HAVE BEEN IDENTIFIED BY CONSERVATION PROFESSIONALS AS IMPORTANT ITEMS FOR CONSIDERATION IN COLORADO SCHOOL CURRICULUM. FOR EACH ITEM MARK YOUR OPINION OF THE DEGREE TO WHICH THE ISSUE OR CONCEPT IS BEING TAUGHT IN YOUR DISTRICT'S SCHOOLS (left scale) AND THE DEGREE OF PERCEIVED NEED FOR THE CONCEPT TO BE TAUGHT IN YOUR DISTRICT'S SCHOOLS (right scale). YOU MAY MAKE BROAD ASSUMPTIONS AS TO THE MEANING OF EACH CONCEPT LISTED BELOW.

Degree Concept is Being Taught				Conservation Education Concepts and Issues	Degree of Need for the Concept to be Taught			
High	Moderate	Low	None		High	Moderate	Low	None
1	2	3	4	1. Water conservation	1	2	3	4
1	2	3	4	2. Ecological principles	1	2	3	4
1	2	3	4	3. Pollution	1	2	3	4
1	2	3	4	4. Environmental values	1	2	3	4
1	2	3	4	5. Energy conservation	1	2	3	4
1	2	3	4	6. Soil conservation	1	2	3	4
1	2	3	4	7. Wildlife	1	2	3	4
1	2	3	4	8. Resource recovery	1	2	3	4
1	2	3	4	9. Land use	1	2	3	4
1	2	3	4	10. Population	1	2	3	4
1	2	3	4	11. Local environmental issues	1	2	3	4
1	2	3	4	12. Other (specify): _____	1	2	3	4
1	2	3	4		1	2	3	4
1	2	3	4		1	2	3	4

- II. FOR EACH TYPE OF SERVICE IN CONSERVATION EDUCATION MARK THE DEGREE TO WHICH EACH SERVICE IS RECEIVED BY YOUR DISTRICT (left scale) AND THE DEGREE TO WHICH EACH SERVICE IS NEEDED BY YOUR DISTRICT (right scale).

Degree of Present Service Use				Conservation Education Service (from any source)	Degree of Service Need			
High	Moderate	Low	None		High	Moderate	Low	None
1	2	3	4	1. Staff training (inservice workshops)	1	2	3	4
1	2	3	4	2. Materials and Information Receipt				
1	2	3	4	a. Printed instructional material	1	2	3	4
1	2	3	4	b. Film, slides, poster	1	2	3	4
1	2	3	4	c. Kits and equipment	1	2	3	4
1	2	3	4	d. Curriculum guides	1	2	3	4
1	2	3	4	3. Guest or Resource Speakers	1	2	3	4
1	2	3	4	4. Program Planning and Development	1	2	3	4

1	2	3	4	5. Identification of lands, properties, etc. (other than school district lands)	1	2	3	4
1	2	3	4	6. Resource specialists providing service to schools beyond guest lecture presentations.	1	2	3	4
1	2	3	4	7. Other (specify):	1	2	3	4
1	2	3	4		1	2	3	4

III. INDICATE THE LEVELS OF PRESENT INVOLVEMENT (left scale) AND THE IDEAL LEVELS OF INVOLVEMENT (right scale) WHICH STUDENTS HAVE OR SHOULD HAVE WITH CONSERVATION EDUCATION CURRICULA IN YOUR DISTRICT'S SCHOOLS.

Level of Present Involvement				Involvement Levels	Ideal Level of Involvement			
A Great Deal	Moderate	Little	None		A Great Deal	Moderate	Little	None
1	2	3	4	1. Preschool; Day care	1	2	3	4
1	2	3	4	2. Elementary school (K-6)	1	2	3	4
1	2	3	4	3. Middle school (7-9)	1	2	3	4
1	2	3	4	4. High school (10-12)	1	2	3	4
1	2	3	4	5. School community (adults)	1	2	3	4
1	2	3	4	6. School clubs and youth organizations	1	2	3	4
1	2	3	4	7. Other (specify):	1	2	3	4
1	2	3	4		1	2	3	4

IV. PLEASE RESPOND TO THE FOLLOWING STATEMENTS CONCERNING CONSERVATION EDUCATION:

1. In this school district conservation education is (check one) . . .

- ☐ part of the formal curriculum.
☐ part of the informal curriculum (teachers preference).
☐ part of the formal and informal curriculum.
☐ not being taught at all.

2. Conservation education is important for our future survival. (circle one)

strongly agree agree no opinion disagree strongly disagree

3. Conservation education should be near the top of the State's educational priority list. (check one)

strongly agree agree no opinion disagree strongly disagree

STUDENT CONSERVATION EDUCATION SURVEY

Discussion Format and Reporting Form

Name of School _____ School District _____

Discussion facilitated by: Name _____ Date _____

Position _____

Students participating:

Name	Grade
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Conservation Education can be thought of as an understanding and appreciation of one's natural heritage and development of one's responsibilities to the environment. Conservation Education includes the wise use or non-use of our natural resources for the benefit of all.

- I. THE FOLLOWING CONSERVATION EDUCATION ISSUES AND CONCEPTS HAVE BEEN IDENTIFIED BY CONSERVATION PROFESSIONALS AS IMPORTANT ITEMS FOR CONSIDERATION IN COLORADO SCHOOL PROGRAMS. FOR EACH ITEM MARK YOUR GROUP'S OPINION AS TO WHETHER OR NOT THIS SCHOOL TEACHES THE CONCEPT (left scale) AND ALSO MARK YOUR GROUP'S OPINION AS TO WHETHER OR NOT THE CONCEPT SHOULD BE TAUGHT IN THE SCHOOL PROGRAM (right scale). YOU MAY MAKE BROAD ASSUMPTIONS AS TO THE MEANING OF THE ELEVEN (11) CONCEPTS LISTED BELOW.

Degree Concept Is Being Taught				Conservation Education Concepts or Issues	Degree of Need for The Concept to be Taught			
High	Moderate	Low	None		High	Moderate	Low	None
1	2	3	4	1. Water conservation	1	2	3	4
1	2	3	4	2. Ecological principles	1	2	3	4
1	2	3	4	3. Pollution	1	2	3	4
1	2	3	4	4. Environmental values	1	2	3	4
1	2	3	4	5. Energy conservation	1	2	3	4
1	2	3	4	6. Soil conservation	1	2	3	4
1	2	3	4	7. Wildlife	1	2	3	4
1	2	3	4	8. Resource recovery	1	2	3	4
1	2	3	4	9. Land use	1	2	3	4
1	2	3	4	10. Population	1	2	3	4
1	2	3	4	11. Local environmental use	1	2	3	4
				Other (list other concepts or issues which you feel should be taught):				
1	2	3	4	_____	1	2	3	4
1	2	3	4	_____	1	2	3	4
1	2	3	4	_____	1	2	3	4

- II. THERE ARE MANY WAYS CONSERVATION EDUCATION CAN BE TAUGHT. FOR EACH CONSERVATION EDUCATION TEACHING METHOD PLEASE MARK YOUR GROUP'S PERCEPTION OF THE DEGREE TO WHICH EACH METHOD IS USED IN YOUR SCHOOL (left scale) AND YOUR OPINION OF THE DEGREE TO WHICH EACH TEACHING METHOD SHOULD BE USED IN YOUR SCHOOL (right scale).

Degree Method is Used				Conservation Education Teaching Methods	Degree Method Should be Used			
High	Moderate	Low	None		High	Moderate	Low	None
1	2	3	4	1. Conservation taught by <u>every</u> teacher as part of their regular class.	1	2	3	4
1	2	3	4	2. Conservation taught <u>only</u> by specific teachers (i.e., science, history).	1	2	3	4
1	2	3	4	3. Conservation taught <u>only</u> by trained conservation professionals.	1	2	3	4
1	2	3	4	4. Teachers assisted by conservation professionals as guest speakers.	1	2	3	4
1	2	3	4	5. Teachers using printed conservation materials.	1	2	3	4
1	2	3	4	6. Teachers using conservation films, slides, kits, or equipment.	1	2	3	4
1	2	3	4	7. Teachers using field trips, outdoor learning areas, or other out-of-building events.	1	2	3	4
1	2	3	4	8. The use of television by the school to teach conservation education concepts.	1	2	3	4
1	2	3	4	9. School district use of a resident (overnight) center or camp for teaching outdoor education or conservation education.	1	2	3	4
1	2	3	4	10. Teachers assigning individual or group conservation education projects (i.e., independent study).	1	2	3	4
1	2	3	4	11. Other methods (specify):	1	2	3	4
1	2	3	4		1	2	3	4
1	2	3	4		1	2	3	4
1	2	3	4		1	2	3	4

- III. THERE ARE MANY CRITICAL CONSERVATION AND ENVIRONMENTAL ISSUES AND PROBLEMS WHICH FACE THE COUNTRY TODAY (i.e., SUCH AS THOSE LISTED IN ITEM I). PLEASE DISCUSS AND RECORD YOUR GROUP'S CONSENSUS TO THE FOLLOWING TWO ITEMS:

1. During the next three years what are the three most critical conservation issues that Colorado will face?

No. 1 _____

No. 2 _____

No. 3 _____

George Ek

Colorado Department of Education
School Improvement and Leadership Services
201 East Colfax
Denver, Colorado 80203

DOCUMENT SOURCE NUMBER: 4

Title: Doane College, Quality of Life

Reference: Quality of Life: Our Solutions, Our Opportunities. Final Report
Richard B. Gartrell
Doane College
Crete, Nebraska 68333
ED 067 253 (ERIC number)

Instrument:

Keyed to
Instrument
Location Index

A. Participant Reaction Survey
Fall Symposium-Workshops

V

sample pages

COMMENT: The two pages are but a sample of the instruments
designed to assess participant reaction to a
series of workshops.

DOCUMENT SOURCE NUMBER: 5

Title: Guam, Environmental Awareness in Elementary Schools

Reference: Environmental Awareness in Guam Elementary Schools
(An evaluation of the Environmental Education for Guam
Schools Project, 1973-1974)
Anthony Kallingal
Guam Department of Education
Agana, Guam

ED 099 222 (ERIC number)

Instruments:

A. Activities checklist
Grade 1
Grade 6

Keyed to
Instrument
Location Index

I C

sample pages

APPENDIX Ia
ACTIVITIES CHECK LIST

ORGANISMS
 GRADE 1

ACTIVITY	YES	NO
<u>DID YOUR STUDENTS:</u>		
Sort seeds into groups?		
Plant seeds in planter cups?		
Set up watering schedules?		
Discuss effect of light on plants?		
Set up aquaria?		
Identify organisms in aquaria by name?		
Observe birth, growth, and death of organisms in aquaria?		
Take schoolyard field trip to locate organisms' habitats?		
Listen to explanation of concept "habitat"?		
Observe African snail and Potted plant?		
Observe color change in aquaria?		
Experiment to find out reason for color change in aquaria?		
Identify organisms that eat other organisms?		
Use term "food web" referring to feeding relation among organisms?		
Draw a food web?		
Observe 'dark' stuff on bottom of aquaria and call it detritus?		
Plant seeds in soil with detritus and without detritus to learn effect of detritus on plant growth?		

APPENDIX If

ACTIVITIES CHECK LIST

ECOSYSTEMS

GRADE 6

	YES	NO
<u>DID YOUR STUDENTS:</u>		
Build a composite terrarium/aquarium?		
Plant pea seeds in terrarium section?		
Place aquatic animals in aquarium?		
Observe aquatic animals several days?		
Place aquatic plants in aquarium?		
Observe aquatic plants several days?		
Add mosquito fish to aquarium?		
Add grasshoppers to terrarium?		
Review concepts of food chain and decomposition?		
Discuss changes in aquarium/terrarium systems?		
Infer dependence of organisms on environment?		
Call a community interacting with its environment an 'ecosystem'? . .		
Observe moisture in their systems?		
Investigate source of the moisture in their systems?		
Discuss cause of condensation on outside of a container of cold beverage?		
Experiment to determine the cause of the condensation?		
Warm and cool liquid Freon-11 to infer that evaporation and condensation are related to change in temperature?		
Evaporate water at one end of a container and condense it at opposite end?		
Observe color change while blowing through BTB and attribute change to carbon dioxide?		
Experiment to find cause for reversal in color of BTB solution overnight?		
Perform experiment to identify seltzer gas as carbon dioxide?		

DOCUMENT SOURCE NUMBER: 6

Title: Iowa, R.S.V.P.: Your Environment

Reference: State of Iowa
Department of Public Instruction
Environmental Education Consultant
Grimes State Office Building
Des Moines, Iowa 50319

Instruments:

Keyed to
Instrument
Location Index

A. Iowa Environmental Education Assessment II C, III A complete

IOWA ENVIRONMENTAL EDUCATION ASSESSMENT

YOUR NAME _____

AGE: _____ NUMBER OF YEARS IN ADMINISTRATION: _____

NUMBER OF CREDITS EARNED IN CONSERVATION AND/OR ENVIRONMENTAL EDUCATION COURSES OR WORKSHOPS.

1. USING THE SCALE BELOW CIRCLE THE NUMBER THAT BEST DESCRIBES YOUR EDUCATIONAL EXPERIENCE ON THE LEFT AND YOUR CURRENT NEEDS, IF ANY, FOR PROFESSIONAL IMPROVEMENT IN ENVIRONMENTAL EDUCATION ON THE RIGHT.

1 2 3 4 5
NONE VERY SOME QUITE A GREAT
 LITTLE A BIT DEAL

PAST EXPERIENCES

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

ENVIRONMENTAL OR CONSERVATION
COURSES ON COLLEGE CAMPUS

SUMMER FIELD COURSE NOT ON A CAMPUS

ENVIRONMENTAL OR CONSERVATION
EXTENSION NIGHT COURSESNON-CREDIT ENVIRONMENTAL OR CON-
SERVATION EDUCATION WORKSHOPS

PROFESSIONAL MEETINGS

SCHOOL IN-SERVICE TRAINING

OTHER-SPECIFY _____

NEEDED EXPERIENCES

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

2. USING THE SCALE BELOW CIRCLE THE NUMBER THAT BEST EXPRESSES YOUR FEELINGS ABOUT EACH OF THE FOLLOWING STATEMENTS.

1 2 3 4 5
STRONGLY DISAGREE NO AGREE STRONGLY
DISAGREE OPINION AGREE

ENVIRONMENTAL EDUCATION IS IMPORTANT FOR
OUR FUTURE SURVIVAL.

1 2 3 4 5

SCHOOLS SHOULD ASSUME A ROLE IN ENVIRONMENTAL
EDUCATION

1 2 3 4 5

ENVIRONMENTAL EDUCATION SHOULD BE NEAR THE TOP
OF THE EDUCATION PRIORITY LIST.

1 2 3 4 5

ENVIRONMENTAL EDUCATION SHOULD BE INCLUDED AS
TIME IS AVAILABLE.

1 2 3 4 5

INTEREST IN ENVIRONMENTAL EDUCATION IS A
PASSING FAD.

1 2 3 4 5

3. USING THE SCALE BELOW CIRCLE THE NUMBER IN EACH COLUMN THAT BEST REPRESENTS YOUR PERSONAL FEELINGS TOWARD THE INCLUSION OF ENVIRONMENTAL EDUCATION IN THE FOLLOWING SUBJECTS IN YOUR SCHOOL.

1 2 3 4 5
NONE VERY SOME MOST TOTALLY
LITTLE

ELEMENTARY (K-6) TEACHERS OR PRINCIPALS ONLY:

SHOULD BE TAUGHT	COULD BE TAUGHT UNDER EXISTING CONDITIONS		IS TAUGHT
1 2 3 4 5	1 2 3 4 5		1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	SCIENCE	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	SOCIAL STUDIES	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	ARITHMETIC	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	LANGUAGE ARTS	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	MUSIC	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	PHYSICAL EDUCATION	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	SEPARATE ENVIRONMENTAL EDUCATION SUBJECT AREA	1 2 3 4 5

SECONDARY (7-12) TEACHERS OR PRINCIPALS ONLY:

SHOULD BE TAUGHT	COULD BE TAUGHT UNDER EXISTING CONDITIONS		IS TAUGHT
1 2 3 4 5	1 2 3 4 5		1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	PHYSICAL SCIENCE (PHYSICS AND CHEMISTRY)	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	BIOLOGICAL SCIENCES	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	EARTH SCIENCES	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	GEOGRAPHY	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	HISTORY	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	AMERICAN GOVERNMENT-POLITICAL SCIENCE	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	ECONOMICS	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	LITERATURE	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	COMPOSITION	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	SPEECH-DRAMA	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	MATHEMATICS	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	HOME ECONOMICS	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	INDUSTRIAL ARTS	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	ART	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	MUSIC	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	PHYSICAL EDUCATION	1 2 3 4 5
1 2 3 4 5	1 2 3 4 5	SEPARATE ENVIRONMENTAL EDUCATION COURSE	1 2 3 4 5
_____	_____	OTHER-SPECIFY	_____

4. USING THE SCALE BELOW CIRCLE THE NUMBER THAT INDICATES YOUR FEELINGS TOWARD INCLUSION OF EACH OF THE TOPICS IN THE CURRICULUM OF YOUR SCHOOL.

PLACE A CHECK IN THE APPROPRIATE COLUMN(S) TO INDICATE LEVEL(S) BEING TAUGHT IN YOUR SCHOOL.

2 VERY LITTLE					3 SOME	4 QUITE A BIT	5 A GREAT DEAL	LEVEL BEING TAUGHT					
NONE								AWARE- NESS	FACTUAL KNOWLEDGE	DECISION MAKING			
<u>SHOULD BE TAUGHT</u>								<u>IS TAUGHT</u>					
1	2	3	4	5	MAN'S DEPENDENCE ON NATURAL RESOURCES	1	2	3	4	5	—	—	—
1	2	3	4	5	ENVIRONMENTAL ETHIC- MAN'S RESPONSIBILITY TOWARD HIS ENVIRONMENT	1	2	3	4	5	—	—	—
1	2	3	4	5	HISTORICAL AND INTER- NATIONAL CULTURAL VIEWS OF MAN AND EARTH	1	2	3	4	5	—	—	—
1	2	3	4	5	ECONOMIC ISSUES OF EN- VIRONMENTAL PROBLEMS	1	2	3	4	5	—	—	—
1	2	3	4	5	POLITICAL ISSUES OF EN- VIRONMENTAL PROBLEMS	1	2	3	4	5	—	—	—
1	2	3	4	5	POPULATION DYNAMICS	1	2	3	4	5	—	—	—
1	2	3	4	5	RECYCLING AND MULTIPLE USE	1	2	3	4	5	—	—	—
1	2	3	4	5	AIR RESOURCES	1	2	3	4	5	—	—	—
1	2	3	4	5	AIR POLLUTION	1	2	3	4	5	—	—	—
1	2	3	4	5	WATER RESOURCES	1	2	3	4	5	—	—	—
1	2	3	4	5	WATER POLLUTION	1	2	3	4	5	—	—	—
1	2	3	4	5	LAND & SOIL RESOURCES	1	2	3	4	5	—	—	—
1	2	3	4	5	LAND & SOIL POLLUTION	1	2	3	4	5	—	—	—
1	2	3	4	5	USE & SOURCES OF ENERGY	1	2	3	4	5	—	—	—
1	2	3	4	5	MINERAL RESOURCES	1	2	3	4	5	—	—	—
1	2	3	4	5	FOREST RESOURCES	1	2	3	4	5	—	—	—
1	2	3	4	5	FISH & WILDLIFE RESOURCE	1	2	3	4	5	—	—	—
1	2	3	4	5	PARKS & NATURAL AREAS	1	2	3	4	5	—	—	—
1	2	3	4	5	VISUAL & NOISE POLLUTION	1	2	3	4	5	—	—	—
1	2	3	4	5	WASTE DISPOSAL	1	2	3	4	5	—	—	—
1	2	3	4	5	INTERRELATEDNESS OF ORGANISMS	1	2	3	4	5	—	—	—
1	2	3	4	5	SUCCESION, BALANCE, LIMITING FACTORS	1	2	3	4	5	—	—	—
1	2	3	4	5	HABITAT, NICHE, FOOD WEB	1	2	3	4	5	—	—	—
1	2	3	4	5	COMPLEXITY, DIVERSITY	1	2	3	4	5	—	—	—

Mr. Duane Toomsen
Environmental Education Consultant
Alternative Programs Section
State of Iowa - Department of Public Instruction
Grimes State Office Building
Des Moines, Iowa 50319

DOCUMENT SOURCE NUMBER: 7

Title: Los Angeles County: Outdoor Environmental Education

Reference: Guide for Self-Appraisal and Certification of Resident
Outdoor Environmental Education Programs
Los Angeles County Schools
Los Angeles, California 90000
ED 134 419 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. Resident Outdoor Environmental Education Program Self-Appraisal Certification Form	III B	4 sample pages
B. Resident Outdoor Environmental Education Program Opinion Questionnaire	II C, VI C	4 sample pages
C. Outdoor School Classroom Teacher Questionnaire	VI C	sample page
D. Outdoor School Pupil Questionnaire	I E	sample page
E. Outdoor School Parent Questionnaire	IV	complete

**RESIDENT OUTDOOR ENVIRONMENTAL EDUCATION PROGRAM (ROEEP)
SELF-APPRAISAL/CERTIFICATION FORM**

PROGRAM AND SITE IDENTIFICATION INFORMATION

[If your Local Education Agency (LEA) operates more than one ROEEP site, fill out a separate form for each site. One per site plus one per program if more than one program at each site.]

1. Name of ROEEP site _____
2. Address or location of site _____

3. Telephone number of site _____
4. Name of LEA operating this site _____
5. Address of LEA operating this site _____

6. Telephone number of LEA operating this site _____
7. Name of person completing this form _____
8. Title _____
9. Date _____
10. Name of the person in charge on site _____
11. Title _____
12. This site is owned ☐ leased ☐ other ☐
If other, please specify: _____
13. How many districts are served at this site? _____
14. How many schools are served at this site? _____
15. Estimated number of pupils to be served this year during regular school days _____
16. Do you operate any summer or weekend programs at this site? Yes ☐ No ☐
If yes, give a brief description of such programs:

13. Are pre- and post-experience activities suggested to correlate the ROEEP with the regular classroom work? Yes ☐ No ☐

How is this accomplished?

14. Does your ROEEP have a systematic procedure for evaluation of:

Attainment of instructional objectives Yes ☐ No ☐

Instructional staff Yes ☐ No ☐

ROEEP administration Yes ☐ No ☐

LEA administration Yes ☐ No ☐

Other (please specify): _____

15. Does your ROEEP have a systematic procedure for evaluation from:

Regular classroom teachers Yes ☐ No ☐

Pupil reaction Yes ☐ No ☐

Parent reaction Yes ☐ No ☐

Other (please specify): _____

16. How are pupils oriented to the ROEEP prior to the on-site educational experience?

☐ ROEEP staff member visit to classroom

☐ ROEEP description by regular classroom teacher

☐ Printed material

☐ Other (please describe): _____

17. Describe briefly the orientation program used to introduce pupils to the environment upon arrival at the site:

Social:

Physical:

5. Describe briefly the involvement of Federal, State, County, local and other agencies including volunteers in the educational activities of the ROEEP:

6. Identify briefly the facilities your site has available for pupil *instruction*. List the physical facilities, interest areas, natural classroom areas (i.e., museums, animal stations, orchards, etc.):

7. List the instructional equipment (i.e., microscopes, cameras, tools, etc.) you have available for your ROEEP:

8. Does the site have a separate budget? Yes ☐ No ☐
9. Does the overall program/programs have a separate budget? Yes ☐ No ☐
10. How would you improve your ROEEP if you had additional human or financial resources? Describe briefly what you would like to do.

STUDENT-CARE STAFF, FACILITIES, AND RESOURCES

1. List the numbers of operational staff on your site:

Kitchen

Number

Maintenance

Custodial

Other (please specify):

2. Are basic menus planned or approved by a nutritionist or dietitian? Yes ☐ No ☐
3. Is a health history required of every pupil attending the ROEEP? Yes ☐ No ☐
4. Does your ROEEP or appropriate LEA maintain health records for a period of Federal statutory limits on every pupil attending? Yes ☐ No ☐
5. Do all ROEEP instructional staff members receive Red Cross First Aid Certificate training or its equivalent? Yes ☐ No ☐
6. Does the ROEEP have an infirmary or an area set aside as a first aid center? Yes ☐ No ☐
7. Does the ROEEP have any arrangements with an accredited hospital and/or a nearby physician for emergency medical care? Yes ☐ No ☐
8. Does your ROEEP have written emergency plans for the following?
- | | | |
|---------------------|------------------------------|-----------------------------|
| Fire | Yes ☐ | No ☐ |
| Earthquake | Yes ☐ | No ☐ |
| Lost Child | Yes ☐ | No ☐ |
| First Aid | Yes ☐ | No ☐ |
| Disaster | Yes ☐ | No ☐ |
| Accident Prevention | Yes ☐ | No ☐ |
9. Does your ROEEP have emergency transportation available at all times? Yes ☐ No ☐
10. Does the site have an emergency communication system? Yes ☐ No ☐
- If yes, describe briefly:

APPENDIX B

RESIDENT OUTDOOR/ENVIRONMENTAL EDUCATION
PROGRAM OPINION QUESTIONNAIRE**Instructions to Respondents:**

On the following questionnaire you are asked to give your perceptions of the outdoor education program. The items you are asked to rate are grouped into four major areas, namely:

- Instructional Programs: Philosophy, Needs, Goals and Objectives
- Instructional Programs: Content and Instructional Strategies
- Instructional Support Processes: Roles and Relationships
- Instructional Support Resources: Site, Staff, Equipment and Materials, Support Services

We would appreciate your rating the items under each of these headings on an agree/disagree scale. Neutral, Don't Know, and Not Applicable columns are provided when one of the four major responses cannot be used or is not appropriate.

Agree ratings should be given on items with which you agree as stated. *Disagree* ratings are used on those items with which you cannot agree. *Agree Somewhat* and *Disagree Somewhat* are used when you slightly agree or disagree.

To summarize, ratings are relative to what you feel about your outdoor education program. It is important to remember that:

- These are *your* perceptions. Thus, this questionnaire should not be discussed with anyone else prior to completing it.
- Your first impression is usually the best.
- At the end of the instrument, you will have an opportunity to discuss factors you consider particularly important.

Your cooperation and interest will help to improve your outdoor education program.

Give a brief description of your position:

	(1)	(2)	(3)	(4)	(A)	(B)	(C)
	Agree	Agree Somewhat	Disagree Somewhat	Disagree	Neutral	Don't Know	Not Applicable
Instructional Programs: Philosophy, Needs, Goals and Objectives							
1. The educational philosophy of the school district was influential in developing the philosophy of the outdoor education program. (1)							
2. There is a written philosophy for the outdoor education program which is consistent with the philosophy of the education for the district. (2)							
3. The primary emphasis of the outdoor education program is on developing understanding and appreciation of man's relationship to his environment. (3)							
4. The instructional program has been designed to meet the identified needs of the students it serves. (4)							
5. The goals of the outdoor education program are based upon the identified needs of the students served. (5)							
6. The goals of the outdoor education program complement the district's goals of education. (6)							
7. Stated student objectives are developed for the accomplishment of the outdoor education program. (7)							
8. Stated student objectives are developed for each program area in the outdoor education program. (8)							
9. Based upon the information available, the outdoor education program is accomplishing its stated purposes and objectives. (9)							

	(1)	(2)	(3)	(4)	(A)	(B)	(C)
	Agree	Agree Somewhat	Disagree Somewhat	Disagree	Neutral	Don't Know	Not Applicable
Instructional Programs: Content and Instructional Strategies							
10. Student orientation is adequate in the areas of: programs, scheduling, facilities, standards of behavior and safety. (10)							
11. Outdoor education program emphasis is on activities which cannot be accomplished in the regular classroom. (11)							
12. Students and teachers have adequate opportunity to develop some of their own objectives for their outdoor education experience. (12)							
13. The regular classroom teacher has responsibility for learning as a participant in the outdoor education program. (13)							
14. The outdoor education program has a written weekly program of objectives. (14)							
15. One of the primary emphases of the outdoor education program is man's relationship to his environment. (15)							
16. The outdoor education program emphasizes first-hand experience with the environment through the five senses. (16)							
17. One emphasis of the outdoor education program is development of citizenship behaviors such as rights, responsibilities, respect for others, chores, privacy, etc. (17)							
18. The outdoor education program offers a wide variety of program activities consistent with its program objectives and environmental phenomena area. (18)							
19. One emphasis of the outdoor education program is solving the problems of living away from home. (19)							

C. Can you suggest methods of how the program can be improved?

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

SAMPLE OUTDOOR SCHOOL CLASSROOM TEACHER QUESTIONNAIRE

Teacher's Name _____ Date _____

School _____ District _____

Please complete this form before you leave the outdoor school on Friday. Your comments will help the onsite staff to keep informed about situations and conditions at outdoor school. Your suggestions will aid the outdoor school staff in efforts to upgrade the instructional program and improve effectiveness of the different activities at outdoor school.

1. Overall, what do you think your class learned at outdoor school that they might not have learned in a "traditional" classroom setting?
2. Was there a balance or blend of the three thrusts: the natural environment, social living, conservation and protection of the environment? Yes _____ No _____
3. Was the outdoor school program an effective laboratory for learning to live with others? Yes _____ No _____
4. Have you noticed that your pupils have developed more positive attitudes toward the environment? Yes _____ No _____
5. Do you use Nature's Classroom? Yes _____ No _____
If yes, how?
Suggest changes you would like to see in the guide (use reverse side of evaluation sheet if necessary).
6. How much time was spent in preparing your class for outdoor school?
7. What things did you do in preparing your class for outdoor school?
8. What activities, if any, have you planned for your class as a follow up to the outdoor school experience.
9. How can the onsite outdoor school program be improved? (Use reverse side of evaluation sheet if necessary.)

**SAMPLE
OUTDOOR SCHOOL PUPIL QUESTIONNAIRE**

Pupil's name _____

School _____ Teacher _____

Date of attendance _____ Cabin Group _____

1. Did you enjoy your week at outdoor school? Yes _____ No _____
2. Did you make new friends? Yes _____ No _____
3. How did you feel about your cabin mates at the first meeting on Monday? (Check one)
 _____ I like them. _____ I wasn't sure I liked them. _____ I didn't like them.
4. After one week of living with your cabin mates how do you feel about them now? (Check One)
 _____ I like them. _____ I am not sure I like them. _____ I don't like them.
5. Did you like the food? Yes _____ No _____
6. Do you think pupils in future classes should attend outdoor school? Yes _____ No _____
7. Do you feel different about the outdoors and the natural environment after you have attended outdoor school? Yes _____ No _____ If yes, explain.
8. Of all the things you did at outdoor school, which ones did you like?

Check the activities you liked.

TRAIL ACTIVITIES

- _____ Daily Hikes
- _____ Long Hike (Thursday)
- _____ Night Hike

CABIN ACTIVITIES

- _____ Cabin Housekeeping
- _____ Rest Period
- _____ Letterwriting
- _____ Storytelling and talking

LARGE GROUP ACTIVITIES

- _____ Campfire
- _____ Folk Dancing
- _____ Stories and Skits
- _____ Ranger Visit

DINING HALL ACTIVITIES

- _____ Setting Tables
- _____ Washing Dishes
- _____ Practicing Good Table Manners
- _____ Being Host, Hostess, or Hopper

PROJECTS

- _____ Planting Trees
- _____ Building Trails
- _____ Cutting Wood
- _____ Creative Crafts

OTHER

9. List any ideas you have to make the outdoor school better. (Use reverse of this questionnaire)

SAMPLE
OUTDOOR SCHOOL PARENT QUESTIONNAIRE

12

Child's Name _____

School _____ Teacher _____

Date of your child's attendance _____

Your child has just returned from a week of outdoor school attendance. The program is planned to provide worthwhile educational experiences which cannot be offered as effectively at any other school setting. We are interested in your reactions to the Colby Ranch Outdoor School Program and in your suggestions for improvement. Your answers to the following questions, as well as your general comments, will be most helpful.

1. Did your child enjoy the week at outdoor school? Yes _____ No _____
2. What did your child talk about most after attending outdoor school?
3. In your opinion, what did your child learn at outdoor school?
4. Has your child's attitude about the outdoors and the environment changed after attending outdoor school?
Yes _____ No _____ If yes, explain.
5. Has your child's attitude or behavior in relations with the family and home changed since attending outdoor school? Yes _____ No _____ If yes, explain.
6. Did your child make new friends at outdoor school? Yes _____ No _____
7. Do you think pupils in future classes should attend outdoor school? Yes _____ No _____
8. Suggest any improvement you feel should be made in the outdoor school program? (report situations or conditions your child did not like during the week). Use back of this form if needed.

Jack L. Davidson, Consultant
Division of Curriculum and Instructional Services
Office of the Los Angeles County Superintendent of Schools
Los Angeles County Education Center
9300 East Imperial Highway
Downey, California 90242

Parent's Signature

ED 134 419

DOCUMENT SOURCE NUMBER: 8

Title: Michigan University: Environmental Learnings Scorecard

Reference: The Environmental Learnings Scorecard
Jerome Johnston
Michigan University
Institute for Social Research
Ann Arbor, Michigan 48103
ED 135 652 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

- | | | |
|---|------|----------------|
| A. Environmental Learnings Scorecard
Clear Lake YCC, Summer 1975 | I C | 5 sample pages |
| B. Camp Summary Sheet for Environmental
Education Scorecard | VI A | 4 sample pages |

The sample Environmental Learnings Scorecard and the Camp Summary Sheet for Environmental Education Scorecard were extracted from the reference document listed above. Persons interested in additional samples should either contact the author at the Institute for Social Research or obtain a copy of the ERIC report.

Campor's Name _____

ENVIRONMENTAL LEARNINGS SCORECARD
CLEAR LAKE YCC -- SUMMER 1975

Date and Staff Initials
Knew Be- Learned
fore Camp At Camp

1. Do a soil analysis using the Lamotte soil sample kit and correctly identify the soil texture, structure, Ph, temperature, and color. _____
2. List ways in which man can affect each of the above elements of the soil. _____
3. Describe the differences between sand, silt, and clay. _____
4. Describe a plant community associated with common soil types in this area. _____
5. Name three animals associated with each of the above plant communities. _____
6. Describe the role of each of these elements in the hydrology cycle: evaporation, transpiration, rainfall, runoff, and ground water. _____
7. Describe in non-technical terms how plants make energy and oxygen as a by-product. _____
8. Cite 3 climatic factors which affect plant growth. _____
9. Cite 3 ways in which man alters forest and wetland ecosystems. _____
10. Describe at least 3 ways in which there is interaction among soil types, plant communities, and animals. _____
11. Correctly perform a water analysis using the Hach Water Analysis Kit. Do readings on dissolved oxygen, Ph, and temperature. _____
12. List 3 ways in which man can affect each of the above elements in water. _____

8A

SAMPLE SCORECARD--
REDUCED SIZE FOR
EASY CARRYING

- To achieve this size scorecard
1. Type original of scorecard on legal size paper (8½" x 13").
 2. Instruct local printer:
 - a. photo reduce each page of the original to 65% of its size. This will result in a new copy of each page that is approximately 5½" x 8½".
 - b. paste these onto new sheets 8½" x 11" following layout of this sample scorecard. Produce enough copies to have enough for everyone in camp plus a sizeable number of extras.

Date and Staff Initials
Knew Be- Learned
fore Camp At Camp

13. Construct a food chain from producers through consumers using plants and animals from this area. Note the numbers in each group relative to the adjacent group on the chain.
14. Describe the flow of energy from the sun through the food chain.
15. Given several plant or animal populations, identify 3 factors which could limit the number of individuals in that population.
16. Indicate what evidence would indicate that there was too large an animal population on a plant community.
17. Given three areas in different stages of succession, identify which stage each area is in and support your decision.
18. Relate how productivity varies in each stage from pioneer to intermediate to climax.
19. Indicate ways in which man can influence plant success.
20. After study visits to the following, communicate your attitudes and feelings about man's effect on ecosystems in this area. (a) sanitary land fill, (b) solid waste disposal, (c) an industrial site, (d) recreational areas, (e) forest management areas, (f) residential areas around a lake.
21. Outline the Forest Service philosophy of multiple land use.
22. Identify, analyze and propose at least two alternate plans of management for each of your work projects that has a management dimension to it.
23. At the end of the summer participate in a discussion which attempts to identify ecological problems that exist in your home setting and suggest possible solutions to some of them.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Date and Staff Initials
Knew Be- Learned
fore Camp At Camp

24. Analyze your life style (pattern of recreation, consumption, transportation, shelter, job) with respect to the following: (a) its impact on other people, (b) whether resources involved are renewable or non-renewable, (c) whether or not the products are biodegradable, (d) whether activity is based on need or want, (e) whether activity shows concern for present or future, (f) whether activity shows concern for forms of life other than man.
25. Participate in the planning and carrying out of the following activities: (a) overnight backpacking (edible foods, etc.), (b) day hiking (map reading, rock scrambling, etc.), (c) river canoeing.
26. On the above activities work cooperatively to achieve the objectives of the activities.
27. Demonstrate in your own decision-making an awareness that every action has more than one impact; that the action makes "ripples" throughout the ecosystem.
28. On a nature hike show a recognition (using all your senses) of the presence of natural phenomena of which you were formerly unaware. The goal is not to be able to name the many features of the environment; rather to simply recognize the existence of the not-so-obvious workings of the environment. Examples: (a) walking barefoot on a bog, recognizing that there are many different-feeling plants underfoot and that the bog itself feels different from solid ground. (b) Hear that there are many different noises in the woods. (c) Notice different smells in the woods.
29. In 5 years, given a decision that will have an impact on the environment, choose the alternative that shows the greatest respect for the delicate nature of the environment.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Camper's Name _____

ENVIRONMENTAL LEARNINGS SCORECARD
CLEAR LAKE YCC -- SUMMER 1975

	Date and Staff Initials	
	<u>Knew Be-</u> <u>fore Camp</u>	<u>Learned</u> <u>At Camp</u>
1. Do a soil analysis using the Lamotte soil sample kit and correctly identify the soil texture, structure, Ph, temperature, and color.	_____	_____
2. List ways in which man can affect each of the above elements of the soil.	_____	_____
3. Describe the differences between sand, silt, and clay.	_____	_____
4. Describe a plant community associated with common soil types in this area.	_____	_____
5. Name three animals associated with each of the above plant communities.	_____	_____
6. Describe the role of each of these elements in the hydrology cycle: evaporation, transpiration, rainfall, runoff, and ground water.	_____	_____
7. Describe in non-technical terms how plants make energy and oxygen as a by-product.	_____	_____
8. Cite 3 climatic factors which affect plant growth.	_____	_____
9. Cite 3 ways in which man alters forest and wetland ecosystems.	_____	_____
10. Describe at least 3 ways in which there is interaction among soil types, plant communities, and animals.	_____	_____
11. Correctly perform a water analysis using the Hach Water Analysis Kit. Do readings on dissolved oxygen, Ph, and temperature.	_____	_____
12. List 3 ways in which man can affect each of the above elements in water.	_____	_____
13. Construct a food chain from producers through consumers using plants and animals from this area. Note the numbers in each group relative to the adjacent group on the chain.	_____	_____
14. Describe the flow of energy from the sun through the food chain.	_____	_____
15. Given several plant or animal populations, identify 3 factors which could limit the number of individuals in that population.	_____	_____

51

	Date and Staff Initials	
	<u>Knew Be- fore Camp</u>	<u>Learned At Camp</u>
16. Indicate what evidence would indicate that there was too large an animal population on a plant community.	_____	_____
17. Given three areas in different stages of succession, identify which stage each area is in and support your decision.	_____	_____
18. Relate how productivity varies in each stage from pioneer to intermediate to climax.	_____	_____
19. Indicate ways in which man can influence plant success.	_____	_____
20. After study visits to the following, communicate your attitudes and feelings about man's effect on ecosystems in this area. (a) sanitary land fill, (b) solid waste disposal, (c) an industrial site, (d) recreational areas, (e) forest management areas, (f) residential areas around a lake.	_____	_____
21. Outline the Forest Service philosophy of multiple land use.	_____	_____
22. Identify, analyze and propose at least two alternate plans of management for each of your work projects that has a management dimension to it.	_____	_____
23. At the end of the summer participate in a discussion which attempts to identify ecological problems that exist in your home setting and suggest possible solutions to some of them.	_____	_____
24. Analyze your life style (pattern of recreation, consumption, transportation, shelter, job) with respect to the following: (a) its impact on other people, (b) whether resources involved are renewable or non-renewable, (c) whether or not the products are biodegradable, (d) whether activity is based on need or want, (e) whether activity shows concern for present or future, (f) whether activity shows concern for forms of life other than man.	_____	_____
25. Participate in the planning and carrying out of the following activities: (a) overnight backpacking (edible foods, etc.), (b) day hiking (map reading, rock scrambling, etc.), (c) river canoeing.	_____	_____
26. On the above activities work cooperatively to achieve the objectives of the activities.	_____	_____
27. Demonstrate in your own decision-making an awareness that every action has more than one impact; that the action makes "ripples" throughout the ecosystem.	_____	_____

Date and Staff Initials

<u>Knew Be-</u>	<u>Learned</u>
<u>fore Camp</u>	<u>At Camp</u>

28. On a nature hike show a recognition (using all your senses) of the presence of natural phenomena of which you were formerly unaware. The goal is not to be able to name the many features of the environment; rather to simply recognize the existence of the not-so-obvious workings of the environment. Examples: (a) walking barefoot on a bog, recognizing that there are many different-feeling plants underfoot and that the bog itself feels different from solid ground. (b) Hear that there are many different noises in the woods. (c) Notice different smells in the woods.
29. In 5 years, given a decision that will have an impact on the environment, choose the alternative that shows the greatest respect for the delicate nature of the environment.

NUMBER COMPLETING EACH OBJECTIVE		Camp Name _____		ENVIRONMENTAL LEARNINGS SCORECARD	ENACLES NAME
Beginning of Camp	By End of Camp	LEARNING OBJECTIVES			
		List of Objectives			
		TOTAL NUMBER OF OBJECTIVES ATTAINED:			

Enter date & staff initials when objective is complete: 7/5 JJ
 Circle if completed before camp education program begins: 6/26 JJ

Summer 1975 -- Experimental Form for EE Scorecard -- Institute for Social Research

CAMP SUMMARY SHEET FOR ENVIRONMENTAL EDUCATION SCORECARD
Youth Conservation Corps

Camp Name _____ Camp Location _____
City _____ State _____

Form completed by _____

After camp closes the person completing this form can be reached at:

Street Address _____

City _____ State _____ Zip Code _____

Telephone (Area Code + telephone number) _____

1. On the Master Scorecard cross out the names and any staff initials of enrollees who were not present for the entire session.

2. Calculate the following items from the Master Scorecard

N.ENR = number of enrollees on the scorecard who were at camp for the entire session

_____ N.ENR

N.OBJ = number of learning objectives. Count each objective for which there is a separate line on the Scorecard

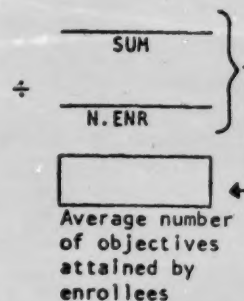
_____ N.OBJ

3. Summarize how well the enrollees were able to meet your objectives

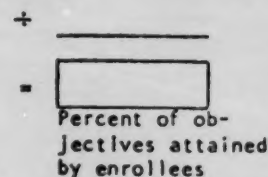
3a. For each enrollee, sum the total number of learning objectives which have been initialed. Include any initials which have been circled. Put this number in the box at the bottom of each enrollee's column.

3b. Sum across the bottom row on the Master Scorecard

3c. Divide #3b by the number of enrollees in your camp (N.ENR from #2 above)



3d. Divide #3c by the number of objectives on your list (N.OBJ from #3 above)



4. Evaluating each of the learning objectives.

4a. The two left-most columns of the Master Scorecard should be filled in. Across each row, total the number of circled initials; put this number in the left-most box labelled, "Beginning of Camp." For the same row, total all of the initials -- whether or not they are circled -- and put this number in the box labelled, "By End of Camp."

4b. Pick out the objectives for which you were most and least successful.

MOST SUCCESSFUL		
<u>Number reaching the obj.</u>	<u>Objective identifying number</u>	<u>Statement of the Objective</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Why do you think so many were able to reach these objectives? (Easy thing to do, intrinsic interest, good staff for this topic, quality of plan for presenting the topic, etc.)

LEAST SUCCESSFUL		
<u>Number reaching the obj.</u>	<u>Objective identifying number</u>	<u>Statement of the Objective</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Why do you think so few were able to reach these objectives? (Objective too difficult, topic not interesting to teenagers, staff not well-enough prepared to present this topic, poor approach to teaching this topic, ran short of time, etc.)

[Send this sheet and copy of an "Environmental Learnings Scorecard" to:
Dr. Jerome Johnston, Institute for Social Research, P.O.B. 1248, Ann Arbor,
Michigan 48106]

Environmental Education Scorecard
Summary Data on the Four Camps

	<u>No. Enrollees</u>	<u>No. Objectives</u>	<u>Objectives Approved as Adequate</u>	<u>Ave. No. of Objectives reached by enrollees (as a pct. of total)</u>
A.	46	47	—	96%
B.	19	36	—	68%
C.	39	28	—	89%
D.	No report			

Reasons cited for not reaching all objectives

- lack of time
- a staff person who is essential to teaching one of the objectives was unavailable

Reasons cited for reaching "most successful" objectives

- intrinsic interest
- learning method: learning by doing
- good staff

DOCUMENT SOURCE NUMBER: 9

Title: Michigan University, Youth Conservation Corps

Reference: An Evaluation of the 1973 Youth Conservation Corps
Jerome Johnston, David Lingwood, William Morris, Robert Marans
Michigan University
Institute for Social Research
Ann Arbor, Michigan 48103

ED 135 654 (ERIC number)

Keyed to
Instrument
Location Index

Instruments:

- A. 1973 Youth Conservation Corps
End of Camp Booklet

I E

sample pages

COMMENT: This reference document contains a large number of sample instruments that can be used for a variety of purposes. Only a small sample of the instrument pages contained in the document are presented in this manual.

The "1973 Youth Conservation Corps Environmental Education Test: was developed by Jerome Johnston and Beverly Driver and appears on pages 93-119 of the reference listed above.

INSTITUTE FOR SOCIAL RESEARCH
THE UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN 48106

2

O.M.B. No.: 40-S73029
Approval expires: Oct. 31, 1973

Booklet Number

1973 YOUTH CONSERVATION CORPS
IRP BOOKLET

The questions below are to help us understand how you feel about your experiences in the Youth Conservation Corps so far this summer.

Before we begin we need some information which will be used by the staff at the University of Michigan to match up the three different questionnaires which you will fill out for them this summer.

1-3

Camp number _____

4-9

1. When were you born? _____
(month) (day) (year)

10

2. How many brothers do you have? (do not include yourself)? _____

11

3. How many sisters do you have? (do not include yourself)? _____

12

4. How do you feel about your Youth Conservation Corps experience so far this summer?

- ☐ 1. I REALLY LIKE IT
- ☐ 2. I LIKE IT
- ☐ 3. I CAN'T SAY I CLEARLY LIKE OR DISLIKE IT
- ☐ 4. I DISLIKE IT
- ☐ 5. I REALLY DISLIKE IT

13

5. How worthwhile has your Youth Conservation Corps experience been to you so far this summer?

- ☐ 1. VERY WORTHWHILE
- ☐ 2. SOMEWHAT WORTHWHILE
- ☐ 3. NOT VERY WORTHWHILE
- ☐ 4. NOT AT ALL WORTHWHILE

Some people think corps members should participate in running the Youth Conservation Corps camps. Others think the camp supervisory staff should decide everything. In each of the following areas please tell us what you think is best. Place an "X" through your answer.

- 14 6. How much do you think corps members should participate in planning the camp work program?

1. A GOOD DEAL 2. SOME 3. VERY LITTLE 4. NOT AT ALL

- 15 7. How much do you think corps members should participate in planning the camp recreational program?

1. A GOOD DEAL 2. SOME 3. VERY LITTLE 4. NOT AT ALL

- 16 8. How much do you think corps members should participate in planning the environmental education program?

1. A GOOD DEAL 2. SOME 3. VERY LITTLE 4. NOT AT ALL

- 17 9. How much do you think corps members should participate in deciding on camp discipline?

1. A GOOD DEAL 2. SOME 3. VERY LITTLE 4. NOT AT ALL

Now we would like your views on the amount of participation you think you have had in running this camp.

- 18 10. How much do you think you have participated in planning the camp work program?

1. A GOOD DEAL 2. SOME 3. VERY LITTLE 4. NOT AT ALL

- 19 11. How much do you think you have participated in planning the camp recreational program?

1. A GOOD DEAL 2. SOME 3. VERY LITTLE 4. NOT AT ALL

- 20 12. How much do you think you have participated in planning the environmental education program?

1. A GOOD DEAL 2. SOME 3. VERY LITTLE 4. NOT AT ALL

- 21 13. How much do you think you have participated in deciding on camp discipline?

1. A GOOD DEAL 2. SOME 3. VERY LITTLE 4. NOT AT ALL

1973 YOUTH CONSERVATION CORPS
GATB BOOKLET

INSTRUCTIONS

When you answer the questions inside, please observe carefully these important requirements:

- Use only the soft (No. 2) pencil you were given. Don't use a pen.
- Make heavy black marks that fill the circles.
- Erase completely any answer you wish to change.
- Make no stray markings of any kind.

On this page are some exercises in finding the two words which have either the SAME meaning or OPPOSITE MEANINGS.

Look at exercise 1.

- (1) ● big ● large ③ dry ④ slow

Big and *large* have the SAME meaning. Therefore, the 1 and 2 circles have been filled in.

Now look at exercise 2.

- (2) ① dreary ● loyal ③ ancient ● disloyal

Loyal and *disloyal* have OPPOSITE meanings, so the 2 and 4 circles have been filled in.

Here are some practice exercises. In each exercise, find the two words which have either the SAME meaning or OPPOSITE meanings and fill in the correct circles.

- | | | | |
|-----------|-----------|-----------|------------|
| ① mild | ② correct | ③ wrong | ④ similar |
| ① open | ② fall | ③ start | ④ finish |
| ① amusing | ② tiny | ③ awkward | ④ funny |
| ① examine | ② help | ③ inspect | ④ discover |

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

On the following pages are more exercises like these. Work as fast as you can without making mistakes. You will be allowed 5 minutes.

61. Camp No.

Copy this
number
in here

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

62. When were you born? (Write month, day, and year in the boxes, then fill in the circles to match.)

Month	Day	Yr.
Jan	0 0	0
Feb	1 1	1
Mar	2 2	2
Apr	3 3	3
May	4 4	4
Jun	5 5	5
Jul	6 6	6
Aug	7 7	7
Sep	8 8	8
Oct	9 9	9
Nov		
Dec		

63. How many brothers and sisters do you have? (Do not include yourself.)

Brothers Sisters

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

64. How old were you on your last birthday?

13	14	15	16	17	18
☐	☐	☐	☐	☐	☐

65. Have you completed a course in natural science, biology, conservation, or outdoor education in school?

☐ Yes ☐ No

66. Have you had any camping experience prior to this summer? (CHECK ALL THAT APPLY.)

- ① Attended a YCC camp in the summer of 1971 or 1972.
- ② Some other camping experience (this can include camping with parents, scouts, church groups, summer camps, etc. DO NOT include prior YCC camp experience.
- ③ No previous camping experience.

67. Which of the following best describes the place where your home is located?

- ① A large city of more than 500,000 people
- ② A medium size city of 100,000 to 500,000 people
- ③ A suburb of a medium or large city
- ④ A small city of 25,000 to 100,000
- ⑤ A small town of less than 25,000 people
- ⑥ A rural area
- ⑦ An Indian reservation

68. How much schooling has your father had?

- ① Completed grade school or less
- ② Some high school
- ③ Completed high school
- ④ Some college
- ⑤ Completed college
- ⑥ Some graduate school

69. How much schooling has your mother had?

- ① Completed grade school or less
- ② Some high school
- ③ Completed high school
- ④ Some college
- ⑤ Completed college
- ⑥ Some graduate school

INSTITUTE FOR SOCIAL RESEARCH
THE UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN 48106

4

O.M.B. No.: 40-S73029
Approval expires: Oct. 31, 1973

Booklet Number

1973 YOUTH CONSERVATION CORPS END-OF-CAMP BOOKLET

The questions below are to help us understand how you feel about your experiences in the Youth Conservation Corps so far this summer. The first questions should be answered right in this booklet. First, fill in the box below. This information will be used by the staff at the University of Michigan to match up the different questionnaires which you filled out for them this summer.

1-3

Camp number _____

4-9

1. When were you born? _____
(month) (day) (year)

10

2. How many brothers do you have? (Do not include yourself, stepbrothers or half brothers.) _____

11

3. How many sisters do you have? (Do not include yourself, stepsisters or half sisters.) _____

4. To begin with, how do you feel about your Youth Conservation Corps experience this summer?

☐ 1 I REALLY LIKED IT

☐ 2 I LIKED IT

☐ 3 I CAN'T SAY I CLEARLY LIKED OR DISLIKED IT

☐ 4 I DISLIKED IT

☐ 5 I REALLY DISLIKED IT

5. How worthwhile to you was your Youth Conservation Corps experience this summer?

☐ 1 VERY WORTHWHILE

☐ 2 SOMEWHAT WORTHWHILE

☐ 3 NOT VERY WORTHWHILE

☐ 4 NOT AT ALL WORTHWHILE

Some people think corps members should participate in running the Youth Conservation Corps camps. Others think the camp supervisory staff should decide everything. In each of the following areas please tell us what you think is best. Place an "X" through your answer.

- 14 6. How much do you think corps members should participate in planning the camp work program?

1. A GOOD DEAL

2. SOME

3. VERY LITTLE

4. NOT AT ALL

- 15 7. How much do you think corps members should participate in planning the camp recreational program?

1. A GOOD DEAL

2. SOME

3. VERY LITTLE

4. NOT AT ALL

- 16 8. How much do you think corps members should participate in planning the environmental education program?

1. A GOOD DEAL

2. SOME

3. VERY LITTLE

4. NOT AT ALL

- 17 9. How much do you think corps members should participate in deciding on camp discipline?

1. A GOOD DEAL

2. SOME

3. VERY LITTLE

4. NOT AT ALL

Now we would like your views on the amount of participation you think you have had in running this camp.

- 18 10. How much do you think you have participated in planning the camp work program?

1. A GOOD DEAL

2. SOME

3. VERY LITTLE

4. NOT AT ALL

- 19 11. How much do you think you have participated in planning the camp recreational program?

1. A GOOD DEAL

2. SOME

3. VERY LITTLE

4. NOT AT ALL

- 20 12. How much do you think you have participated in planning the environmental education program?

1. A GOOD DEAL

2. SOME

3. VERY LITTLE

4. NOT AT ALL

- 21 13. How much do you think you have participated in deciding on camp discipline?

1. A GOOD DEAL

2. SOME

3. VERY LITTLE

4. NOT AT ALL

These next questions give us additional information on how you feel about the camp and its staff. The questions are designed to determine how the staff and corps members have worked together this summer and are important to the planning of future Youth Conservation Corps programs. Therefore, we would like you to answer each question as thoughtfully and frankly as possible. Remember this is not a test and there are no right or wrong answers.

Next to each question is a line with words explaining what each end of the line means. We want you to place an X at the point along the line which, in your experience, best describes how your camp was. For example, if on the first question you feel your camp staff was rarely friendly and supportive, you would put an X on the far left end of the line. If you think the staff was almost always friendly and supportive you would put the X on the far right end of the line. If your experience was somewhere in between, please place an X where you think it belongs.

- | | | | |
|-------|---|-------------------|---------------------|
| 22-23 | 14. How often was the behavior of the camp staff friendly and supportive? | Rarely | Almost Always |
| | | | |
| | 15. How often did the staff ask for and use your ideas about: | Rarely | Very Frequently |
| 24-25 | a. Program matters such as work assignments and topics studied? | | |
| 26-27 | b. Non-program matters such as discipline and free time activities? | Rarely | Very Frequently |
| | | | |
| 28-29 | 16. To what extent was the staff willing to try new ways of doing things in order to improve the corps program? | Practically never | A very great extent |
| | | | |
| 30-31 | 17. To what extent did you consider individual members of the staff as friends? | Practically never | A very great extent |
| | | | |
| 32-33 | 18. To what extent was the staff willing to share information with corps members about the camp and its operation? | Practically never | A very great extent |
| | | | |
| 34-35 | 19. To what extent did the staff give <u>positive</u> rather than <u>negative</u> comments or criticisms in discussing the work of corps members? | Practically never | A very great extent |
| | | | |
| 36-37 | 20. How well did you feel you understood the goals and objectives of the Youth Conservation Corps program? | Not Well | Very Well |
| | | | |

DOCUMENT SOURCE NUMBER: 10

Title: Model for Evaluation

Reference: Cognitive and Affective Changes of Environmental
Education -- A Model for Evaluation
Richard K. Fletcher Jr., and S. K. Ballal
ED 155 055 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. Sample Test Items	I A	2 sample pages
B. Attitude Survey (Likert type)	I B	sample page
C. Attitude Survey (semantic differential type)	I B	sample pages

COMMENT: This document contains information on pre-test and post-test scores that can be used as a reference.

Please answer each of the following by marking the single most correct choice.

	Scores	
	<u>Pre-Test</u>	<u>Post-Test</u>
1. This refers to life or processes that can occur only in the presence of oxygen. A. Adsorption B. Biodegradable C. Autotrophic D. Aerobic E. Absorption	56.52%	69.57%
2. The adhesion of a substance to the surface of a solid or a liquid. A. Adsorption B. Absorption C. Autotrophic D. Effluent E. Flocculation.	47.83%	30.43%
3. The employment of living organisms to determine the biological effect of some substance, factor, or condition. A. Biological Oxidation B. Bioassay C. Carcinogenesis D. Eutrophication E. Isomerization.	43.48%	52.17%
4. Single-celled microorganism that lack chlorophyll and are sometimes useful and sometimes harmful to man. A. Bacteria B. Plankton C. Curies D. Herbivores E. Fluorocarbons.	95.65%	86.96%
5. A chemical agent used to break up concentrations of organic material, such as an oil spill. A. Germicide B. Herbicide C. Dispersant D. Fluorocarbon E. Hydrocarbon.	90.30%	95.65%
6. A discharge of pollutants into the environment, partially or completely treated or in its natural state. A. Flocculation B. Eutrophication C. Fusion D. Filtration E. Effluent	21.74%	47.83%
7. The addition of nitrogen, phosphorous and carbon compounds or other nutrients into a waterway. A. Flocculation B. Enrichment C. Oxidation D. Biodegradation E. Eutrophication	17.39%	26.09%
8. The study of diseases as they affect populations. A. Eutrophication B. Epidemiology C. Flocculation D. Monitoring E. Phytotoxication	91.30%	82.61%

	Scores	
	<u>Pre-Test</u>	<u>Post-Test</u>
25. A variation of an element having the same atomic number as the element itself but a different atomic mass. A. Isomer B. Inversion C. Eutrophication D. Allotrope E. Isotope.	73.91%	95.45%
26. A heavy metal, highly toxic if breathed or ingested which is residual in the environment. A. Uranium B. Fluorocarbons C. Fly Ash D. Mercury E. Strontium.	86.96%	81.82%
27. The process by which soluble materials in the soil are washed into a lower layer of soil or are dissolved and carried away by water. A. Inversion B. Absorption C. Dispersion D. Leaching E. Enrichment.	52.17%	65.22%
28. Periodic or continuous determination of the amount of pollutants or radioactive contamination present in the environment. A. Biological Control B. Autotrophism C. Monitoring D. Phytotoxination E. Dredging.	82.61%	86.96%
29. The study of the principles, mechanisms and effects of radiation on living matter. A. Radiobiology B. Phytotoxin C. Bioassay D. Monitoring E. Pathogenesis.	82.61%	91.30%
30. The process by which waste materials are transformed into new products. A. Radiation B. Recycling C. Fusion D. Biological Control E. Fission.	95.65%	100.00%
31. The Construction of solids removed from sewage during waste water treatment. A. Sludge B. Stagnation C. Rubbish D. Plankton E. Recycling.	69.57%	86.96%
32. A tremendous sound produced when a vehicle exceeds the speed of sound. A. Ozone B. Radiation C. Sonic Boom D. Adsorption E. Absorption.	100.00%	100.00%
33. A controlled process of degrading organic matter by microorganisms. A. Biological Oxidation B. Biological Control C. Biodegradable D. Adsorption E. Composting.	21.74%	21.74%

B

Please respond to the following statements by marking the most appropriate choice for each item on the corresponding number of the answer sheet.

- 5 Strongly Agree
 4 Agree
 3 Undecided or No Opinion
 2 Disagree
 1 Strongly Disagree

	Mean	
	<u>Pre-Test</u>	<u>Post-Test</u>
1. We live in a relatively closed life-support system on this earth.	4.22	3.7 N.S.
2. The relationship between organisms and their living and non-living environment are interrelated and interact upon each other.	4.74	4.83 N.S.
3. Human beings live in an ecosystem and have little ability to control the system.	1.70	1.61 N.S.
4. The human race should not attempt to control the population.	1.70	1.39 N.S.
5. The earth is capable of producing an unlimited amount of food.	2.83	2.78 N.S.
6. Raw materials are essentially inexhaustable on the earth	1.48	1.39 N.S.
7. Any person living on earth is responsible to all other persons living on earth.	4.17	3.87 N.S.
8. The amount of energy used by an individual has been on a gradual decline over the past ten years.	1.57	1.22 N.S.
9. Air pollution is not a problem except in the cities.	1.52	1.35 N.S.
10. One solution to providing more food is to clear off the jungles and plant crops.	2.26	2.48 N.S.
11. Land use is a private matter which should be left to the discretion of the individual owner.	2.17	2.04 N.S.

USE OF LAND					Mean		
	A(1)	B(2)	C(3)	D(4)	E(5)	Pre-Test	Post-Test
Strong	_____	_____	_____	_____	_____	1.43	1.52
Important	_____	_____	_____	_____	_____	1.13	1.22
Bad	_____	_____	_____	_____	_____	3.04	3.13
Regulated	_____	_____	_____	_____	_____	2.61	2.57
Successful	_____	_____	_____	_____	_____	2.78	3.13
Simple	_____	_____	_____	_____	_____	4.04	3.65
Realistic	_____	_____	_____	_____	_____	2.65	2.22
Weak							
Unimportant							
Good							
Unregulated							
Unsuccessful							
Complex							
Unrealistic							

OFFSHORE DRILLING OF PETROLEUM WELLS

	A(1)	B(2)	C(3)	D(4)	E(5)			
Strong	_____	_____	_____	_____	_____	Weak	2.39	2.00
Important	_____	_____	_____	_____	_____	Unimportant	1.65	1.52
Bad	_____	_____	_____	_____	_____	Good	2.87	2.57
Regulated	_____	_____	_____	_____	_____	Unregulated	2.04	1.83
Successful	_____	_____	_____	_____	_____	Unsuccessful	2.83	2.70
Simple	_____	_____	_____	_____	_____	Complex	4.22	4.26
Realistic	_____	_____	_____	_____	_____	Unrealistic	2.35	2.26

ACCESS TO LAKES AND WATERWAYS

	A(1)	B(2)	C(3)	D(4)	E(5)			
Strong	_____	_____	_____	_____	_____	Weak	2.14	2.04
Important	_____	_____	_____	_____	_____	Unimportant	1.74	1.73
Bad	_____	_____	_____	_____	_____	Good	3.78	3.39
Regulated	_____	_____	_____	_____	_____	Unregulated	2.13	2.39
Successful	_____	_____	_____	_____	_____	Unsuccessful	2.48	2.35
Simple	_____	_____	_____	_____	_____	Complex	3.22	3.22
Realistic	_____	_____	_____	_____	_____	Unrealistic	2.35	2.17

						Mean		
FOOD PRODUCTION						<u>Pre-Test</u>	<u>Post-Test</u>	
	A(1)	B(2)	C(3)	D(4)	E(5)			
Strong	_____	_____	_____	_____	_____	Weak	1.39	1.43
Important	_____	_____	_____	_____	_____	Unimportant	1.17	1.22
Bad	_____	_____	_____	_____	_____	Good	3.78	3.68
Regulated	_____	_____	_____	_____	_____	Unregulated	2.70	2.43
Successful	_____	_____	_____	_____	_____	Unsuccessful	2.43	2.61
Simple	_____	_____	_____	_____	_____	Complex	3.83	3.96
Realistic	_____	_____	_____	_____	_____	Unrealistic	1.78	2.04
BREEDER REACTORS								
	A(1)	B(2)	C(3)	D(4)	E(5)			
Strong	_____	_____	_____	_____	_____	Weak	1.96	1.70
Important	_____	_____	_____	_____	_____	Unimportant	1.92	2.00
Bad	_____	_____	_____	_____	_____	Good	3.35	2.09
Regulated	_____	_____	_____	_____	_____	Unregulated	2.17	2.00
Successful	_____	_____	_____	_____	_____	Unsuccessful	2.91	3.26
Simple	_____	_____	_____	_____	_____	Complex	3.83	4.30
Realistic	_____	_____	_____	_____	_____	Unrealistic	2.17	2.91
GAS MILEAGE FOR CARS								
	A(1)	B(2)	C(3)	D(4)	E(5)			
Strong	_____	_____	_____	_____	_____	Weak	1.30	1.52
Important	_____	_____	_____	_____	_____	Unimportant	1.30	1.30
Bad	_____	_____	_____	_____	_____	Good	3.09	3.04
Regulated	_____	_____	_____	_____	_____	Unregulated	2.52	2.35
Successful	_____	_____	_____	_____	_____	Unsuccessful	3.52	3.83
Simple	_____	_____	_____	_____	_____	Complex	3.70	3.43
Realistic	_____	_____	_____	_____	_____	Realistic	2.39	1.70

DOCUMENT SOURCE NUMBER: 11

Title: Montana Educational Assessment Program

Reference: Montana Educational Assessment Program
Montana State Office of Public Instruction
Helena, Montana 59601

Instruments:

Keyed to
Instrument
Location Index

A. Montana Educational Assessment Program
Test Book 2, Grade 6

I B

sample pages

COMMENT: A similar test booklet is available for Grade 12.

William E. Connett, Ph.D.
Director
Office of Public Instruction
State Capitol
Helena, Montana 59601
(406) 449-3095

COOPERATION



SECTION A

DIRECTIONS: For each of the following statements mark the choice on your answer sheet that is closest to how you feel. There are no correct or incorrect answers.

1. I feel bad if I do something that hurts another person's feelings.
2. When someone does something to me, I get even one way or another.
3. I like to tease or make fun of younger kids.
4. I am often mean to other people.
5. When I get angry, I feel like hurting others.
6. I try to cheer people up when they are sad.
7. I am not a mean person.
8. I treat other people with kindness.
9. I sometimes like to do things to get even with adults.
10. Sometimes I enjoy hurting people.
11. I try not to laugh at other people when they make mistakes.
12. I try not to say things to my friends that would hurt their feelings.

SECTION B

13. I don't feel really accepted by many people.
14. I often feel lonely.
15. Other kids like to include me when they do things together.
16. I am popular with kids my own age.
17. I make friends easily.
18. Most people don't understand me.
19. Most people like me.

20. I often feel that people are making fun of me.
21. I don't know anyone I could really call a true friend.
22. I often feel left out of things other kids do.
23. I have a lot of friends.
24. I feel most people are interested in my ideas and opinions.
25. People like to be with me.
26. I doubt that I ever will have many close friends.
27. Most people are friendly to me.
28. I don't think many people care what happens to me.

SECTION C

29. I am afraid people will laugh at me if I say something wrong or do something stupid.
30. I am not a shy person.
31. I feel uncomfortable around people I don't know.
32. I find it hard to talk when I meet new people.
33. I am not easily embarrassed.
34. I worry about what people think about me.
35. When I am in a group I usually don't say much for fear I will say the wrong thing.
36. It bothers me when I think people are looking at me.
37. I feel at ease with strangers.
38. I am a good talker.
39. I don't know what to say when I am with people I don't know well.
40. I can handle myself pretty well in most social situations.

ENVIRONMENT



77

SECTION A

DIRECTIONS: For each of the following statements mark the choice on your answer sheet that is closest to how you feel. There are no correct or incorrect answers.

1. I turn off lights to save energy even if no one else does.
2. Whenever I buy something to drink I always look for containers that can be returned and recycled.
3. If I were out in the woods and saw a tin can, I would pick it up and carry it out.
4. I wouldn't mind making personal sacrifices if future generations could have a quality environment.
5. I would suggest to my teacher that we turn out the lights in the classroom if they weren't needed.
6. It is important for me to be able to enjoy the beauty of nature.
7. I'd listen to loud music even if it did damage my hearing.
8. If I saw a friend littering, I'd ask that person to pick up the litter or I would pick it up.
9. If I saw a factory that was polluting a river, I'd report it to someone I thought could do something about it.
10. If I saw a way my school could save energy, I'd tell the principal or a teacher.
11. I don't really care to know more about environmental problems since I can't do much about them anyway.
12. I am not interested enough in environmental issues to discuss them.
13. I don't get concerned about air pollution I can't see.
14. I would help clean up the litter in town even if I had to volunteer my time to do so.
15. I'd kill a coyote if I got the chance.
16. I think that if I pay for a hunting and a fishing license, I should be able to hunt or fish anywhere I please.

17. In my home I want to have every electrical convenience possible.
18. I would be willing to pay more for solar energy if it resulted in less pollution.
19. I would rather have a souped up car than a compact economy car.
20. I would help clean up a river even if I didn't get paid for it.

SECTION B

21. Scrap paper drives are a waste of time.
22. We should use solar heating in Montana to save other kinds of energy.
23. I think we should use nuclear fission reactors to meet our energy needs in spite of problems with nuclear waste.
24. We should build new dams whenever there is a demand for more electricity.
25. People who try to protect their land and ways of living against resource development are only thinking of themselves.
26. I think conserving fossil fuels is a waste of time since science will find something to take their place.
27. I think the earth will never run out of clean air and water so why worry about it.
28. Pesticides should be used so that we can have fruit and vegetables without worms.
29. Regardless of what people say, there are few risks involved in changing the environment to meet human needs.
30. Private land owners should have the right to do anything they please with their land.
31. The number of people entering a wilderness area should be controlled.
32. Ranchers should have the right to kill an eagle if it attacks their sheep.
33. I think people who attend meetings on environmental issues are wasting their time.

CHANGE



SECTION A

DIRECTIONS: For each of the following statements mark the choice on your answer sheet that is closest to how you feel. There are no correct or incorrect answers.

1. I don't like to start anything unless I have a pretty good idea how it will turn out.
2. I only take risks when I am forced to.
3. I am usually willing to try something if I think I might succeed.
4. People who are afraid to take risks seldom get ahead in life.
5. I like to try to do things other people say can't be done.
6. I would never try anything my friends said was impossible.
7. I will seldom try to do something if I think I might fail.
8. I don't like to get involved in something I know little or nothing about.
9. I like to have someone else set the rules for me to follow.
10. I wouldn't try to get something changed if I thought it might upset someone.
11. I think it is foolish to take part in sports where there is danger of getting hurt.

SECTION B

12. I am not too quick to accept new ideas.
13. Once I have made up my mind I very seldom change it.
14. I don't mind changing the way I do things.
15. I like to try new approaches to problems.
16. It takes me a long time to get used to anything new.
17. I like to have my life arranged so that it runs smoothly, without much change.

18. It bothers me when something upsets my routine.
19. I keep things the way I want them and don't like people to change them.
20. It doesn't bother me to have people change things I have gotten used to.
21. People who want to change things create problems for everyone.
22. Most people who try to change things are trouble makers.
23. I like my life planned so that I always know what is going to happen.
24. I don't get upset when things change.
25. Without change, life would be a lot worse than it is.
26. I like variety and change in my daily life.
27. I like to try new things.

SECTION C

28. I learn a lot from my own mistakes.
29. I take things pretty much as they are and don't look for ways of changing them.
30. Progress is achieved when people are willing to work for improvement.
31. People don't like change, so why try to change things.
32. The way the world is going there is no point trying to change it.
33. There is really nothing one person can do to improve conditions in the world.
34. I try to imagine what life might be like in the future.
35. I am always questioning why things are the way they are.
36. I like to question the way things are done to see if there might be a better way.
37. When I see something I think needs changing I try to change it.

COMMUNICATION

PART 2



SECTION A

DIRECTIONS: For each of the following statements mark the choice on your answer sheet that is closest to how you feel. There are no correct or incorrect answers.

1. I read only as much as I have to.
2. Being able to read well is important to me.
3. I hate to read.
4. Reading is easy for me.
5. We have to read too much in school.
6. I like to read all kinds of books.
7. I spend a lot of time reading.
8. I would rather read than watch T.V.
9. Reading is boring.
10. I don't really care about being a good reader.
11. I make mistakes because I don't read well.
12. I am a slow reader.
13. I have to look up too many words when I read.
14. Being able to read well is important for everyone.
15. Most reading is a waste of time.
16. Reading is important for success in life.

SECTION B

17. I like to write stories, poems and all kinds of things.
18. Being able to write well is important to me.
19. I hate assignments where I have to write a lot.
20. I don't really care about being a good writer.
21. Being able to write well is important for success in life.
22. We have to do too much writing in school.

23. I only care about being able to write well enough to get by in life.
24. Writing isn't very important for my future plans.
25. Everyone should learn to write well.
26. I would like to have a job that requires a lot of writing.
27. I enjoy writing in my spare time.
28. I can usually express myself better in writing than any other way.
29. I have a hard time putting my thoughts in writing.
30. I could never be a writer.
31. Writing is one of the things I do best.

SECTION C

32. I get nervous when I talk in a group.
33. I have a hard time getting my ideas or opinions across in class discussions.
34. Everyone should learn to speak well.
35. I have difficulty talking to anyone other than my family or friends.
36. I like to talk.
37. I am good at expressing my ideas in words (talking).
38. I would like a job that requires talking with a lot of people.
39. I really come across well to people on the telephone.
40. How good you are at talking isn't important as long as you can get your ideas across.
41. I write much better than I speak.
42. I have trouble saying what I mean.
43. Good speaking ability is important for my future plans.
44. I am pretty good at speaking in front of an audience.

DOCUMENT SOURCE NUMBER: 12

Title: Minnesota Environmental Education Council

Reference: Minnesota Environmental Education Council
Minnesota Department of Education
Capitol Square Building
St. Paul, Minnesota 55101

Instruments:

Keyed to
Instrument
Location Index

A. School District Interest Survey	III A	complete
B. School District Questionnaire	III A	sample pages
C. Trial Test Survey: Secondary Units	II B	sample pages
D. Part II: Secondary E.E. Unit	VI C	sample pages
E. Adventure: Environment Teacher questionnaire	VI C	sample pages
F. Survey of Voluntary Organizations with Environmental Concerns	V	sample pages
G. Survey of Municipalities	V	sample pages

ENVIRONMENTAL EDUCATION CENTER FOR METROPOLITAN AND SOUTHERN MINNESOTA
SCHOOL DISTRICT INTEREST SURVEY

Name and number of your district _____

Name of person completing this form _____

1. Would your district be interested in this idea, in principle? Yes ___ No ___
2. If yes, which of the following options would your district utilize? (Check one or more)

___ Day programs for students
 ___ Resident programs for students
 ___ In-service day program for school administrators and teachers
 ___ In-service resident programs for school administrators and teachers

3. Which of the following distances do you feel would be the upper limit for travel to such a facility? (Please check the appropriate distance category)

<u>Day Program</u>	<u>Resident Program</u>
0 - 50 miles _____	0 - 50 miles _____
51 - 100 miles _____	51 - 100 miles _____
101 - 150 miles _____	101 - 150 miles _____

4. Would your district be able to provide per diem expenses for:

Students: Yes ___ No ___
 Staff: Yes ___ No ___

5. If your district is able to provide expenses, what would you estimate as a reasonable amount for daily meals and lodging?

Students \$ _____ Staff \$ _____

6. Please feel free to make any further comments. Thanks for your help.

MINNESOTA ENVIRONMENTAL EDUCATION COUNCIL
Minnesota Department of Education
671 Capitol Square
St. Paul 55101

School District	<u> </u>
	name number

Environmental education is an integrated process which deals with man's inter-relationship with his natural and man-made surroundings; including the relation of population growth, pollution, resource allocation and depletion, conservation, technology, and urban and rural planning to the total human environment. Environmental education is a study of the factors influencing ecosystems, mental and physical growth, living and working conditions, decaying cities, and population pressures. Environmental education is intended to promote among citizens the awareness and understanding of the environment, our relationship to it, and the concern and responsible action necessary to assure our survival and to improve the quality of life.

1. Name of person completing questionnaire _____
Phone: _____
2. Title of person completing questionnaire:
1 _____ Superintendent
2 _____ Curriculum Coordinator
3 _____ High School Principal
4 _____ Elementary Principal
5 _____ Science Curriculum Consultant
6 _____ Social Studies Curriculum Consultant
7 _____ Science teacher
8 _____ Social Studies Teacher
9 _____ Other. Please specify _____
3. Does your school district have a written policy on environmental education which has been officially adopted by the school board?
1. _____ yes
2. _____ no If yes, please enclose a copy.
4. Does your school district have an item in the 1971-72 budget for environmental education?
1. _____ yes If yes, what are the amounts for: Capital outlay: \$ _____
2. _____ no Operating: \$ _____
5. Has anyone on your staff been assigned administrative responsibilities for environmental education?
1. _____ yes If yes, please answer the following for each person with such responsibilities:
2. _____ no
- A. Name _____
Title _____
Percent of time devoted to administrative responsibilities relating to environmental education _____

6. Has your school district received funds from an outside source for environmental education?

1. yes If yes, Source Amount Received
 2. no

_____	_____
_____	_____
_____	_____

7. Have local citizens or environmental organizations approached the school district requesting that attention be given to environmental education in the school curriculum?

1. yes
 2. no

8. Have students in your school district approached the faculty or administration requesting that attention be paid to environmental matters in the school curriculum?

1. yes
 2. no

9. Does your school district have a student organization whose primary focus is upon environmental matters?

1. yes
 2. no

10. Does your school district have a program of environmental, conservation and/or outdoor education?

Note: To answer "yes" you do not necessarily have to have separate courses or even specific units on this topic within courses. A "yes" answer should at least mean, however, that an overt effort is being made to pay special attention to the topic within the school district curriculum.

1. yes 2. no.

(IF YOUR ANSWER TO THE ABOVE QUESTION IS YES, PLEASE ANSWER ALL OF THE FOLLOWING ITEMS.) If your answer to the above question was no, please skip items 11-18 and start again with item 19.

11. Which of the following capsule statements best represents the intent of your program? (check only one)

1. Education for and in the out-of-doors
 2. Pollution control education
 3. Conservation of our natural resources
 4. Rational utilization of our environment
 5. Nature study and interpretation
 6. Man and his relationship to his cultural, natural, and physical environment.
 7. Development of environmental awareness and ethics.

12. During which of the following times is the program in operation? (check all that apply)

 Regular school week
 School vacations
 Weekends
 Summer vacation

13. How many pupils are enrolled in the program?

<u>Enrollment in program</u>	<u>Total enrollment in school system</u>
Elementary.....	_____
Junior High.....	_____
Senior High.....	_____

14. What is the average number of days each student spends in the program?

	<u>In the classroom</u>	<u>Outside the classroom</u>
Elementary.....	_____	_____
Junior.....	_____	_____
Senior High.....	_____	_____

15. Which of the following areas of study and activities are included in your program?
(check all that apply)

☐ Agriculture	☐ Insect study
☐ Angling and casting	☐ Limnology (pond study)
☐ Art	☐ Literature
☐ Astronomy	_____
☐ Biology	_____
☐ Botany	☐ Music
☐ Canoeing and water safety	☐ Physical education
☐ Chemistry	☐ Physics
☐ Conservation	☐ Psychology
☐ Creative writing	☐ Reading
☐ Drama	☐ Recreation
☐ Ecology	☐ Science, general
☐ English	☐ Sculpture
☐ Forestry	☐ Social Studies
☐ Geography	☐ Weather study
☐ Geology	☐ Zoology
☐ Health	☐ Other: _____
☐ History	_____
☐ Home economics	_____
☐ Hunter safety	_____

16. How is your program administered?

☐ Decentralized within the school system
☐ Centralized within the school system
☐ In cooperation with other school system(s)
☐ Other: _____

17. Circle the grade levels participating in the program. (check all that apply)
PK K 1 2 3 4 5 6 7 8 9 10 11 12 Adult Ed

18. Circle the grade(s) where major program emphasis is placed. (circle all that apply)
PK K 1 2 3 4 5 6 7 8 9 10 11 12 Adult Ed

(EVERYONE SHOULD ANSWER THE FOLLOWING QUESTIONS WHETHER OR NOT YOUR SCHOOL HAS AN ENVIRONMENTAL EDUCATION PROGRAM)

19. Has your school district conducted any in-service training programs for teachers in environmental education?

1. ☐ yes If yes, title of session(s) _____
 2. ☐ no _____

TRIAL TEST SURVEY

SECONDARY EE UNITS
EE OPTION I PROJECT

INTRODUCTION

This survey is to call upon you to share your Secondary EE Unit experiences with us. It would, indeed, be difficult to modify and improve upon the units you have just trial tested without your help.

Try to respond to all of the items. Be candid. Remember, we are interested in learning all we can about how the Units work in real teaching situations.

This questionnaire is composed of two parts. Part one: General Information, is intended to learn something about you, the teacher. Included are items dealing with your experience and how you feel, in general, about the area of environmental education.

Part Two: Secondary EE Unit, deals specifically with the Secondary EE Unit(s) you have trial tested. It is important for you to notice that there is an identical set of items for each Unit you have just taught. Each set is of a different color. Please respond to a set for each Unit you have tested for us.

Results will be held in confidence. Individuals, schools, and districts will not be identified. Thanks again for your time and effort.

PART ONE: GENERAL INFORMATION

How many years have you taught? _____

What subjects and at what level(s) do you teach?

<u>Subject</u>	<u>Level</u>
_____	_____
_____	_____
_____	_____
_____	_____

Are you teaching an environmental education course(s)? (i.e., Environmental Biology, Environmental Action, Natural History) Yes _____ No _____

If yes, what is the title(s), grade level(s), and length(s):

Title(s) _____
Grade Level(s) _____
Length(s) _____

Have you taken courses in environmental education before? Yes ____ No ____

If yes, please briefly describe them.

Course(s) Taken *Where When Credits Earned

*Include colleges, in-service workshops, etc.

Opinion

The following items are designed to provide you with an opportunity to express your feelings about environmental education, in general. Try to be as objective as you can. Respond to every item as you would most typically.

Strongly Agree
Agree
Disagree
Strongly Disagree

(please circle one response)

- | | | | | |
|----|---|---|----|---|
| SA | A | D | SD | Environmental education should be included in all K-12 instructional programs. |
| SA | A | D | SD | An outcome of environmental education ought to be alternative ways of thinking about problems |
| SA | A | D | SD | Community members ought to be included in environmental education planning. |
| SA | A | D | SD | Involvement in environmental education is too much to ask of teachers. |
| SA | A | D | SD | I am sure I can define environmental education. |
| SA | A | D | SD | Environmental education should encompass all subjects usually found in the school curriculum. |
| SA | A | D | SD | I would like to continue to be involved in environmental education. |
| SA | A | D | SD | Environmental education is important in the school curriculum. |
| SA | A | D | SD | As a teacher I believe environmental education requires the use of resource people. |
| SA | A | D | SD | As a teacher I believe environmental education requires the use of outdoor sites. |

PART TWO: SECONDARY EE UNIT THE ASSIGNED UNIT

What is the title of the Secondary EE Unit assigned to you?

In what subject area(s) did you teach the Unit? _____

What grade level(s) was this Unit taught in? _____

In the teaching of this Unit, did you utilize instructional materials in addition to those of the Unit? Yes _____ No _____

If yes, please briefly describe them.

Which of the following resource people did you use with your Secondary EE Unit?
(check one or more)

Education people _____
Community people _____
Natural resource people _____
Other _____
I didn't use any _____

Which of the following resource places did you use with your Secondary EE Unit?
(check one or more)

School site _____
Community _____
Regional _____
Other _____

Opinions

The following items are designed to provide you with an opportunity to express your feelings about your assigned Secondary EE Unit, specifically. Try to be as objective as you can. Respond to every item as you would most typically.

Strongly Agree	Agree	Disagree	Strongly Disagree	
SA	A	D	SD	(please circle one response)
SA	A	D	SD	I had problems implementing this Unit
SA	A	D	SD	I would teach this Unit again.
SA	A	D	SD	I think this Unit depends on the use of sites.
SA	A	D	SD	I think this Unit depends on the use of resource people.
SA	A	D	SD	Goal statements were appropriate for the grade/age level.
SA	A	D	SD	Activities in the Unit were effective in helping students attain stated goals.
SA	A	D	SD	Experience with this Unit has caused me to (or will) modify other courses I teach.
SA	A	D	SD	Cost and availability of materials necessary to teach this Unit have been a problem.
SA	A	D	SD	Most of my students were enthusiastic about the Unit.
SA	A	D	SD	The Unit was easy to relate to the subject area I taught it in.
SA	A	D	SD	The Unit is a valid environmental education activity.

The next five statements refer to the parts of the Unit.

SA	A	D	SD	The Introduction was adequate.
SA	A	D	SD	The Goal statements were clear.
SA	A	D	SD	The Activity Description was adequate.
SA	A	D	SD	The Data Sheet/Worksheet was useful (Respond only if they were included in the Unit)
SA	A	D	SD	The Evaluation part was useful.

Open-Ended Items

This part is to ask you for advice and suggestions specific to this Unit. Please provide as much detail as you can. Your comments in this section are especially important to us.

What changes would you recommend in this Unit before it is taught again?

What tips and hints do you have for others who may be teaching the Unit?
(i.e., equipment, teaching strategy, resource people, etc.)

List materials you have used in addition to those recommended by the Unit.

Please feel free to make any further comments about this Unit, environmental education, in general, or any other related topics. Thanks for your time and effort.

ADVENTURE: ENVIRONMENT

The purpose of this short inquiry is to ask you to share some of your experiences and observations, and opinions relative to the series ADVENTURE: ENVIRONMENT. We ask that you be candid. We will appreciate your comments and feel confident that they will contribute to improved ways of providing an environmental education for kids.

GENERAL INFORMATION

Which of the following best describe your involvement with ADVENTURE: ENVIRONMENT?
(may be more than one response)

☐ In-Serviced ☐ Used in classroom ☐ Other

Do you think the series requires in-service activities for teachers?

☐ Yes ☐ No

Please explain

What grades do you teach? _____

How many years of teaching experience do you have? _____ Years

To what extent do you think environmental education is important at this age level?

☐ Very important ☐ Important ☐ Not important

To what extent do you think educational television in general is useful as an environmental education resource in your classes?

☐ Very useful ☐ Useful ☐ Not useful

OPINIONS SPECIFIC TO THE SERIES

Please respond by circling the appropriate response: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

- | | | | | |
|---|----|---|---|----|
| 1. The series, ADVENTURE: ENVIRONMENT was done well, technically. | SA | A | D | SD |
| 2. The kids did not respond particularly well to the series. | SA | A | D | SD |
| 3. The series worked in well with my other classroom activities | SA | A | D | SD |
| 4. I was confused as to how the series was to be used in my classroom | SA | A | D | SD |

- | | | | | |
|---|----|---|---|----|
| 5. The series is worthy of continued use as a resource. | SA | A | D | SD |
| 6. The series is appropriate for the grade and/or age level of the kids | SA | A | D | SD |
| 7. I would probably not voluntarily use the series again. | SA | A | D | SD |

OTHER QUESTIONS ABOUT THE SERIES

Were you free to use the series when it was mostly timely in your classes?

☐ Yes ☐ No

Did you use the series as a supplement to existing curricular approaches?

☐ Yes ☐ No

If you did use it as a supplement, to what extent do you feel it enhanced your curriculum?

☐ To a large extent	☐ To some extent	☐ Hardly at all	☐ Not at all
--	---	--	-------------------------------------

Were there any circumstances in your own school situation that made use of the series troublesome? ☐ Yes ☐ No

please briefly explain.

All things being the same, which of the following recommendations, relative to the series, would you make?

- ☐ use it in the same way
- ☐ use it but in a different way
- ☐ not use it at all
- ☐ other recommendation(s)

briefly explain:

MINNESOTA ENVIRONMENTAL EDUCATION COUNCIL
671 Capitol Square
St. Paul, 55101

SURVEY OF VOLUNTARY ORGANIZATIONS WITH ENVIRONMENTAL CONCERNS

Name of organization _____

Mailing Address _____

City _____

State _____

Zip Code _____

Phone _____ Office hours _____

Name of President _____

Name of person completing
the questionnaire _____

Title _____

ORGANIZATION DESCRIPTION

1. What is the primary purpose of your organization? _____

2. What is the scope of your organization?

- _____ 1) local
- _____ 2) statewide
- _____ 3) nationwide
- _____ 4) international

3. How many members does your organization have?

In Minnesota _____ Nationally _____

4. How many general membership meetings do you typically have during the year?

5. How important is the preservation and improvement of environmental quality to the purposes of your organization?

- _____ 1) Extremely important; it is our primary reason for existence
- _____ 2) Quite important; a significant portion of our efforts are directed at this goal, although we have other concerns as well
- _____ 3) Not very important; although we are concerned and are active in this area at times, most of our activity is directed elsewhere
- _____ 4) Of no importance; our organization does not concern itself with this issue.

6. How active is your organization in attempting to influence public policy and the actions of other groups and individuals in environmental matters?

- _____ 1) militantly active
- _____ 2) quite active
- _____ 3) active as we see a need
- _____ 4) active only rarely
- _____ 5) never active in this way

7. Did you have an active lobby for environmental concerns at the last session of the Minnesota legislature?

 1) yes 2) no

If yes, name of person with primary responsibilities for your lobbying effort: _____

Do you pay your lobbyists? a salary 1) yes 2) no
 expenses only 1) yes 2) no

8. Have your activities on behalf of the environment included any of the following? (check all that apply)

 demonstrations
 organized letter-writing campaigns
 filing law suits
 circulating petitions
 environmental clean-up campaign
 picking up materials for re-cycling
 "letters-to-the-editor" campaigns
 appearance before legislative bodies (including state, local, and school boards)

9. How many paid staff do you have?

Professional: full-time
 part-time

Non-professional: full-time
 part time

10. What percent of your funds (at the state or local level) come from the following sources?

 % dues paid by members % gifts
 % sale of printed materials % grants
 % contracts for services % other, please specify

ENVIRONMENTAL EDUCATION

Environmental education is an integrated process which deals with man's inter-relationship with his natural and man-made surroundings, including the relation of population growth, pollution, resource allocation and depletion, conservation, technology, and urban-rural planning to the total human environment. Environmental education is a study of the factors influencing ecosystems, mental and physical growth, living and working conditions, decaying cities, and population pressures. Environmental education is intended to promote among citizens an awareness and understanding of the environment, our relationship to it, and the concern and responsible action necessary to assure our survival and to improve the quality of life.

11. Is "Environmental Education" a goal of your organization?

 1) yes 2) no. If yes, are your environmental education efforts directed toward:

 1) mainly your own membership
 2) an audience beyond your own membership
 3) both

12. Is there a person in your organization with specifically assigned responsibilities for environmental education?

___ 1) yes ___ 2) no. If yes, please complete the following:

Name _____, Title _____
Phone _____.

13. Have you budgeted funds specifically for environmental education?

___ 1) yes ___ 2) no If yes, annual amount \$ _____,
Percent of total budget _____ %

Before answering the following questions pertaining to various aspects of environmental education, consider the following statement defining the nature and scope of environmental education.

Environmental education is an integrated process which deals with man's interrelationship with his natural and man-made surroundings, including the relation of population growth, pollution, resource allocation and depletion, conservation, technology, and urban and rural planning to the total human environment. Environmental education is a study of the factors influencing ecosystems, mental and physical growth, living and working conditions, decaying cities, and population pressures. Environmental education is intended to promote among citizens the awareness and understanding of the environment, our relationship to it, and the concern and responsible action necessary to assure our survival and to improve the quality of life.

10. Are there any staff members of your municipal government specifically assigned responsibilities regarding environmental problems and environmental education:

0. ☐ no 1. ☐ yes. If yes, please answer the following regarding each staff member with such responsibilities:

Name _____
 Title _____
 % of time devoted to these responsibilities _____ %

Name _____
 Title _____
 % of time devoted to these responsibilities _____ %

16. Does your municipality have municipal ordinances in any of the following areas often considered aspects of environmental education:

0. ☐ no 1. ☐ yes	Pollution control and abatement: briefly describe _____
0. ☐ no 1. ☐ yes	Consumer protection: briefly describe _____
0. ☐ no 1. ☐ yes	Recycling: briefly describe _____
0. ☐ no 1. ☐ yes	Conservation: briefly describe _____
0. ☐ no 1. ☐ yes	Industrial and technological regulation: briefly describe _____
0. ☐ no 1. ☐ yes	Urban planning and urban renewal: briefly describe _____
0. ☐ no 1. ☐ yes	Family planning: briefly describe _____
0. ☐ no 1. ☐ yes	Acquisition and maintenance of environmental education facilities: briefly describe _____

17. Representing your municipality as best you can, how would you respond to each of the following:

<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Depends</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>	
1	2	3	4	5	
					Local officials should promote environmental action in the area of pollution control and abatement.
1	2	3	4	5	Local officials should promote environmental action in the area of consumer protection.
1	2	3	4	5	Local officials should promote environmental action in the area of recycling.
1	2	3	4	5	Local officials should promote environmental action in the area of conservation
1	2	3	4	5	Local officials should promote environmental action in the area of industrial and technological regulation.
1	2	3	4	5	Local officials should promote environmental action in the area of urban planning and renewal.

DOCUMENT SOURCE NUMBER: 13

Title: National Education Association

Reference: Survey of Environmental, Conservation, and Outdoor Education
Research Division
National Education Association
1201 - 16th Street N.W.
Washington, D.C. 20036

Instruments:

Keyed to
Instrument
Location Index

A. Survey of Environmental, Conservation,
and Outdoor Education

III B

complete

Research Division

February 1970

SURVEY OF ENVIRONMENTAL, CONSERVATION, AND OUTDOOR EDUCATION

Name of school system _____

Name of person reporting _____ Position _____

Mailing address _____ ZIP _____

Our records show that you have a program of environmental, conservation, and/or outdoor education. Do you have a program of this type operating currently in your school system? ☐ Yes ☐ No

If YES, please complete the questionnaire.
If NO, please return the questionnaire unanswered.

1. What is the title of the program? (Check ONE.)

- ☐ Conservation education
☐ Environmental education
☐ Outdoor education
☐ Other: _____

2. Which of the following student experiences are included in your program? (Check all that apply.)

- ☐ On-site resident experience (overnight)
☐ Sequential day visit program
☐ Selected field trips
☐ Classroom experiences
☐ Other: _____

3. Which of the following capsule statements best represents the intent of your program? (Check only ONE.)

- ☐ Education for and in the out-of-doors
☐ Pollution control education
☐ Conservation of our natural resources
☐ Rational utilization of our environment
☐ Nature study and interpretation
☐ Man and his relationship to his cultural, natural, and physical environment
☐ Development of environmental awareness and ethics

4. How is your program administered?

- ☐ Decentralized within the school system
☐ Centralized within the school system
☐ In cooperation with other school system(s)
☐ Other: _____

5. Circle grade levels participating in the program. (Circle all that apply.)

PK K 1 2 3 4 5 6 7 8 9 10 11 12 Adult Ed

6. Circle the grade(s) where major program emphasis is placed. (Circle all that apply.)

PK K 1 2 3 4 5 6 7 8 9 10 11 12 Adult Ed

7. During which times of the year is the program in operation? Please indicate the number of weeks. (Check all that apply.)

- ☐ All year _____ weeks
☐ Fall _____ weeks
☐ Winter _____ weeks
☐ Spring _____ weeks
☐ Summer _____ weeks

8. During which of the following times is the program in operation? (Check all that apply.)

- ☐ Regular school week
☐ School vacations
☐ Week ends
☐ Summer vacation

9. a. How many pupils are enrolled in the program?

	Enrollment in program	Total enrollment in school system
Elementary	_____	_____
Junior high ...	_____	_____
Senior high ...	_____	_____

- b. How many teachers participate in the program?

	Teachers in program	Total teachers in school system
Elementary .	_____	_____
Junior high.	_____	_____
Senior high.	_____	_____

- c. What is the average number of days each student spends in the program?

	In the classroom	Outside the classroom
Elementary ...	_____	_____
Junior high ..	_____	_____
Senior high ..	_____	_____

10. What preparation have students had prior to on-site participation in the program? (Check all that apply.)

- ☐ No prior preparation
☐ Discussions and reading in class
☐ Audiovisual presentations in class
☐ Visit to classroom by resource person(s)
☐ Other: _____

11. Which of the following areas of study and activities are included in your program? (Check all that apply.)

- a. ☐ Agriculture
 b. ☐ Angling and casting
 c. ☐ Art
 d. ☐ Astronomy
 e. ☐ Biology
 f. ☐ Botany
 g. ☐ Canoeing and water safety
 h. ☐ Chemistry
 i. ☐ Conservation
 j. ☐ Creative writing
 k. ☐ Drama
 l. ☐ Ecology
 m. ☐ English
 n. ☐ Forestry
 o. ☐ Geography
 p. ☐ Geology
 q. ☐ Health
 r. ☐ History
 s. ☐ Home economics
 t. ☐ Hunter safety
 u. ☐ Insect study
 v. ☐ Limnology (pond study)
 w. ☐ Literature
 x. ☐ Map and compass
 y. ☐ Marine biology
 z. ☐ Marine zoology
 aa. ☐ Mathematics
 ab. ☐ Music
 ac. ☐ Oceanography
 ad. ☐ Physical education
 ae. ☐ Physics
 af. ☐ Psychology
 ag. ☐ Reading
 ah. ☐ Recreation
 ai. ☐ Science, general
 aj. ☐ Sculpture
 ak. ☐ Social studies
 al. ☐ Weather study
 am. ☐ Zoology
 an. ☐ Other: _____

12. How is the curriculum of your program determined? (Check all that apply.)

- ☐ By an instructional team
☐ By the school system
☐ By the state department of education
☐ Field lessons prepared by the teacher for each trip
☐ Student interests
☐ Other: _____

13. What follow-up activities to on-site experiences have been utilized? (Check all that apply.)

- a. ☐ Question does not apply
 b. ☐ Action program (i.e., conservation project)
 c. ☐ Art activities
 d. ☐ Structured lessons
 e. ☐ Drama
 f. ☐ Examination, identification, and use of specimens gathered
 g. ☐ Oral reports and discussions
 h. ☐ Displays and exhibits
 i. ☐ Films, slides and/or transparencies
 j. ☐ Sound recordings
 k. ☐ Reading to extend learning experiences
 l. ☐ Written reports and/or essays
 m. ☐ Other: _____

14. What procedures do you use to evaluate student progress?
- _____
- _____
- _____

15. What procedures do you use to evaluate the program?
- _____
- _____
- _____

16. a. Do students receive a grade in the program?

☐ Yes ☐ No

- b. Do students receive academic credit for work in the program?

☐ Yes ☐ No

17. Has any attempt been made to determine changed attitudes on the part of the students toward their environment?

☐ Yes ☐ No

18. Do you use a resident (overnight) site(s)?

☐ Yes ☐ No

If Yes, which of the following facilities are available? (Check all that apply.)

- a. ☐ Administrative offices
 b. ☐ Amphitheatre
 c. ☐ Auditorium
 d. ☐ Bunkhouses or dormitories
 e. ☐ Cabins
 f. ☐ Classroom(s)
 g. ☐ Crafts shop
 h. ☐ Dining hall
 i. ☐ Display and exhibit center
 j. ☐ Farm buildings
 k. ☐ Indoor meeting rooms
 l. ☐ Infirmary
 m. ☐ Kitchen
 n. ☐ Library
 o. ☐ Animal room
 p. ☐ Lodge
 q. ☐ Museum
 r. ☐ Nature center
 s. ☐ Observatory
 t. ☐ Planetarium
 u. ☐ Science laboratory
 v. ☐ Student store
 w. ☐ Swimming area
 x. ☐ Tents or tent sites
 y. ☐ Zoo
 z. ☐ Other: _____

19. Environmental study programs usually use one or more of three types of sites: (a) immediate school environs (within walking distance of the school), (b) day-use environmental study center (i.e., outdoor education center, day camp, nature center, environmental school), and (c) resident facilities (i.e., resident outdoor school, school camp). For each type of site, please supply the information requested below. (If none, use "0.")

	Immediate school environs	Day-use environmental study center	Resident facilities
Number of sites.	_____	_____	_____
Approximate acreage	_____	_____	_____
Miles from school district	XXXXXXX	_____	_____

20. Which of the following best describes the administrative arrangements relative to the sites listed above? (Check all that apply for each item.)

	Immediate school envi- rons	Day-use envi- ron- mental study center	Resi- dent facil- ities
a. Leased from private camps	☐	☐	☐
b. Leased from state government	☐	☐	☐
c. Leased from federal government	☐	☐	☐
d. Leased from private agency or organization (YMCA, Boy Scouts, etc.) .	☐	☐	☐
e. Leased from private individual	☐	☐	☐
f. Leased from church or religious organizations	☐	☐	☐
g. Owned by the school system .	☐	☐	☐
h. Owned jointly by more than one school system .	☐	☐	☐
i. Used free of charge (Specify owner or benefactor).	☐	☐	☐

21. How many staff permanently reside on the premises of your resident sites?

☐ Have no resident sites
 Administrative
 Instructional
 Operational (i.e., cooks, maintenance)

22. If your school system owns resident facilities or day-use environmental study centers, how were these properties obtained? (Check all that apply.)

☐ Own no such sites
☐ Donated by individual
☐ Donated by business/industry
☐ Willed
☐ Purchased
☐ Other: _____

23. Which of the following activities in your program are conducted outside the classroom? (Check all that apply.)

a. ☐ No outside activities
 b. ☐ Class instructional program
 c. ☐ Day camp program
 d. ☐ Counseling
 e. ☐ Nature study
 f. ☐ Recreation programs
 g. ☐ Regular camping program
 h. ☐ School club outings
 i. ☐ Sport programs
 j. ☐ Student teacher training
 k. ☐ Vocational training
 l. ☐ Work experience
 m. ☐ Other: _____

24. Is there a National Park Service area (i.e., National Seashore, National Park, etc.) within 50 miles of your school system? ☐ Yes ☐ No

If Yes, please name: _____

25. Which of the following features are found on the sites utilized in your program but not owned or leased by your school system? (Check all that apply.)

a. ☐ Aquarium
 b. ☐ Archaeological sites
 c. ☐ Arboretum
 d. ☐ Beach
 e. ☐ Botanical garden
 f. ☐ Camp grounds
 g. ☐ Canyon
 h. ☐ Day camp site
 i. ☐ Desert
 j. ☐ Dump
 k. ☐ Estuary
 l. ☐ Fairground
 m. ☐ Farm
 n. ☐ Fishery
 o. ☐ Forest
 p. ☐ Forest preserve
 q. ☐ Grazing land
 r. ☐ Historic site
 s. ☐ Indian reservation
 t. ☐ Industrial site
 u. ☐ Inner city
 v. ☐ Lake
 w. ☐ Mall
 x. ☐ Monument
 y. ☐ Mountain
 z. ☐ Nature center
 aa. ☐ Park
 ab. ☐ Playground
 ac. ☐ Pond or reservoir
 ad. ☐ Recreation area
 ae. ☐ Resident campsite
 af. ☐ Seashore
 ag. ☐ Sewage plant
 ah. ☐ Sports area
 ai. ☐ Vest pocket park
 aj. ☐ Wildland natural area
 ak. ☐ Wildlife preserve
 al. ☐ Woodland
 am. ☐ Zoo
 an. ☐ Other: _____

26. Does your school system restrict the distance that students may travel to environmental study areas which it does not own or lease? ☐ Yes ☐ No

If Yes, please specify the maximum distance from the school:

Short walking trip _____ miles

One-half day trip _____ miles

Full-day trip _____ miles

Overnight trip.... _____ miles

27. Has your school system utilized any of the following resources offered by the National Park Service, U.S. Department of the Interior? (Check all that apply.)

☐ Visitor centers, nature trails, historic walks, interpretive programs, etc.
☐ Technical assistance in developing local environmental study areas or utilizing existing Environmental Study Areas in the National Park System
☐ Experimental instructional materials being developed in the NEED program (National Environmental Education Development)
☐ Use of National Park Service media resources such as films or pamphlets
☐ Lectures by visiting National Park Service personnel
☐ Other: _____

28. What types of assistance are needed to develop or further develop your program? (Check all that apply.)

- a. ☐ Community involvement/assistance
- b. ☐ Curriculum plans
- c. ☐ Financial aid from outside the school system
- d. ☐ Financial aid from the school system
- e. ☐ Identification and planning of resources for environmental study uses
- f. ☐ Inservice training guidelines
- g. ☐ Instructional materials
- h. ☐ Manpower resources through vocational training programs (Job Corps, Neighborhood Youth Corps, VISTA, etc.)
- i. ☐ Public relations advice
- j. ☐ Research and evaluation help
- k. ☐ Other: _____

29. Indicate the total number of personnel assigned to the program.

_____ full-time _____ part-time

30. What types of personnel participate in the program? (Check all that apply.)

- a. ☐ Camp director
- b. ☐ Camp teacher
- c. ☐ Classroom teacher
- d. ☐ College and university professor or instructor
- e. ☐ Cook
- f. ☐ Curriculum expert
- g. ☐ Director of outdoor education
- h. ☐ Forest Service personnel
- i. ☐ U.S. Government technician
- j. ☐ Guidance counselor
- k. ☐ Librarian
- l. ☐ National Park Service personnel
- m. ☐ Naturalist
- n. ☐ Nurse
- o. ☐ Physical educator
- p. ☐ Physician
- q. ☐ Planner
- r. ☐ Principal
- s. ☐ Resource person
- t. ☐ School psychologist
- u. ☐ State department of education personnel
- v. ☐ State department of conservation personnel
- w. ☐ Park personnel
- x. ☐ Student aides
- y. ☐ Student counselor
- z. ☐ Student teacher
- aa. ☐ Supervisor
- ab. ☐ Teacher aides
- ac. ☐ Technical expert
- ad. ☐ Volunteer, civic
- ae. ☐ Volunteer, PTA
- af. ☐ Other: _____

31. What is the highest degree held by the person in charge of the program?

- ☐ No degree
- ☐ Two-year college diploma, or certificate
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Education specialist or professional diploma based on 6 years of college study
- ☐ Doctor's degree

32. What was the major area of college study of the person in charge of the program?

33. Does your school system provide or support any of the following types of educational opportunities for development and inservice training of personnel involved in this program? (Check all that apply.)

- ☐ No inservice training provided
- ☐ Correspondence courses
- ☐ Field trips
- ☐ Inservice training courses
- ☐ Reference/library materials
- ☐ Research and demonstration projects
- ☐ Staff exchanges
- ☐ Staff meetings
- ☐ Time off and reimbursement for higher education
- ☐ Time off for higher education, no reimbursement
- ☐ Workshops, institutes, conferences
- ☐ Other: _____

34. From which of the following sources have program funds been obtained? (Check all that apply.)

LOCAL SOURCES

- ☐ Private agencies and organizations
- ☐ Public agencies and organizations
- ☐ Board of education
- ☐ Colleges and universities
- ☐ County government
- ☐ Municipal government
- ☐ Private individuals
- ☐ Parent-teacher association
- ☐ Student fund-raising projects
- ☐ Tuition and fees, \$ _____ per student
- ☐ Other: _____

STATE SOURCES

- ☐ Department of conservation/natural resources
- ☐ Colleges and universities
- ☐ Department of education
- ☐ Other: _____

FEDERAL SOURCES

- ☐ ESEA: Title _____
- ☐ NDEA: Title _____
- ☐ EDPA
- ☐ Higher Education Act, Title I
- ☐ Other: _____

OTHER SOURCES

- ☐ Business and industry
- ☐ Grants from private foundations
- ☐ National organizations
- ☐ Other: _____

35. What is your budget for the program for the school year 1969-70?

Capital outlay (land, buildings, permanent developments): \$ _____

Current operating expenditures (salaries and wages, supplies and equipment, rent, services, incidentals): \$ _____

36. If a portion of the capital or operating funds above were received through grants, indicate the sources and the amounts received.

Source	Amount received
_____	\$ _____
_____	\$ _____

37. Briefly describe the philosophy and goals for this program in your school system.

(Please send descriptive materials, curriculum guides, etc. about your program.)

Return completed questionnaire to:
NEA Research Division
1201 Sixteenth Street, N.W.
Washington, D. C. 20036

DOCUMENT SOURCE NUMBER: 14

Title: New Jersey Council for Environmental Education

Reference: A Report on Research and Development in Environmental Education
Dean B. Bennett
Maine Environmental Education Project, Yarmouth
New Jersey State Council for Environmental Education
Upper Montclair
April 16, 1974

ED 091 218 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. Objectives and Sample Test Items

I A

sample pages

COMMENT: The following pages contain examples of environmental education objectives and sample test items. A copy of the final test used with students was not presented in the source document.

Sample Test Item:

Assume that you wish to improve the environment of your school site. First, you decide to learn as much about the total surroundings of your school as you can. This will help you to discover improvement opportunities you can work on.

What are the major natural things in our environment?

As you view the slide, check the list below carefully to see if it includes all the major natural parts of our total environment. If you feel the list is complete, check the space at the top. If incomplete, add to the list.

Major Natural Parts

The list below is complete _____

Land (soils, rocks, minerals, etc.)

Energy (sunlight)

Plants

Animals

If list is incomplete, add here: _____

2. SKILL IN CARRYING OUT AN INVESTIGATION

Basic Behavioral Objective: The student will develop more complete plans and draw upon an increasing number of different sources of relevant and accurate information in his investigation of the components and characteristics of his total environment and man's role in meeting ecological and human needs.

Example: Related Process or Learning Activity Behavioral Objective

The student will plan the objectives and steps of his investigation and identify and utilize a number of sources of information including first-hand study on-site.

Example: Related Formal Evaluation Behavioral Objectives

The student will, while observing a slide of a component of a school site, select the most important kinds of information to gather and arrange a series of investigative steps in a logical order to carry out the gathering and compiling of information.

Sample Test Items:

You have been asked to gather information on the school site which will help identify improvements for the movement of people and vehicles. Included are facilities for walkways, streets, and drives and parking areas as shown in the slide.

- a. Listed below are some of the different kinds of information you should gather to help you in finding improvements which could be made for the movement of people and vehicles on the site.

Check the five most important kinds of information you would need.

_____ Who maintains the facilities?

_____ How long have the facilities been in existence?

- _____ What kinds of facilities exist?
- _____ What is the condition of the facilities?
- _____ Where are the facilities located?
- _____ What are the effects of the facilities on people and nature?
- _____ How are the facilities maintained?
- _____ What are the future needs for movement of people and vehicles on the site?

b. Number the steps below in the way you would go about investigating the traffic and pedestrian facilities on the school site.

- _____ Complete a detailed map of the site's transportation and circulation facilities upon which to show problem areas.
- _____ Prepare a written report on your findings.
- _____ Interview the school maintenance department personnel to determine how well the facilities are meeting needs and record areas where improvements could be made.
- _____ Study and observe the facilities in operation to confirm problems and discover new areas of improvement.
- _____ Take a walk around the site to find out. Sketch and note the kinds, sizes, and locations of existing facilities.

3. SKILL IN COMPILING INFORMATION

Basic Behavioral Objective: The student will, with an increasing degree of skill, accuracy, and completeness, compile and organize collected information in both written and graphic (maps, graphs, etc.) form.

5. SKILL IN EVALUATING THE ENVIRONMENT AND IDENTIFYING OPPORTUNITIES
FOR MAINTAINING AND IMPROVING THE ENVIRONMENT.

Basic Behavioral Objective: The student will evaluate data against criteria and identify and define existing and potential environmental issues and problems in increasing number and complexity.

Example: Related Learning Activity Behavioral Objective

The student will evaluate collected data against criteria and identify and define opportunities to help prevent environmental abuses, correct existing detrimental conditions and alter the environment to enhance its function and quality.

Example: Related Formal Evaluation Behavioral Objective

The student will, given a series of slides and descriptive information related to environmental problems:

- a. define central issues;
- b. correct, complete, and logically arrange a list of problem-solving steps;
- c. identify most likely sources of information;
- d. select the best alternative solutions from several possibilities described;
- e. select the most logical rationale for the alternative solution chosen;
- f. choose a logical plan of action from several described, and
- g. choose the best evaluation procedure from several described.

Sample Test Items:

1. This is a marker along a nature trail which was built near a school to give both students and visitors an opportunity to walk around the site and enjoy it as well as to learn about it. The marker locates and describes for the visitor a special area where certain kinds of wild-life may live.

Imagine you are going to help a class build a nature trail on the school site as these students are doing. Below is a listing of some of the important things to be done.

Number those in the order which you think they should be carried out, numbering your first step as one (1).

- _____ Make a map of the locations of different things found on the site.
- _____ Study how the trail is being used and what people think about it so that if changes are needed they can be made.
- _____ Investigate the area which will be used for the nature trail. Find out, study, and describe what is there.
- _____ Choose the one best route to take after considering the problems which might occur with each one planned.
- _____ Make a plan of how the trail will be built; who will do what, when to do it, what is needed for equipment, etc.
- _____ Draw several different routes the trail might take so the visitor will have an enjoyable and educational experience.

2. Here is a stunted and diseased tree on the parking area and playground of a school. The tree is the only one near the school. It provides shade, attracts wildlife, and the students have a great deal of fun playing on it. Some say the tree should be removed because it is obviously sick and dying, falling dead limbs could be a hazard - "a sick tree is a dangerous tree," it takes time to plow around it in winter, and it is in the way for needed parking during most of the year. Others say it is not dying and its health can be restored by breaking away the tar from around its base so it can get more air and water. Its dead limbs can be cut off, a new parking area should be found, and the tree should be left on the site.

Check the statement below which you believe to be correct.

- _____ The main issue here is finding a parking area.
- _____ The main issue here is whether the tree is going to die or not.
- _____ The main issue here is whether or not there should be a tree in the school yard.

DOCUMENT SOURCE NUMBER: 15

Title: Newsletter Questionnaire

Reference: A Quantitative Analysis of the Effectiveness and Use of
the "Environmental Quality Newsletter": A Comparative
Study of Free and Inexpensive Educational Materials
Neil V. Weber
1976

ED 137 087 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. Environmental Quality Newsletter
Questionnaire

VI C

complete

ENVIRONMENTAL QUALITY NEWSLETTER OPINIONNAIRE

Fellow Teacher:

The purpose of the "Environmental Quality Newsletter" is to provide you and your class with current and relevant information regarding our environment. Please take a few moments to complete this opinionnaire and return it via school mail or postal mail service (see reverse side). Your assistance is appreciated.

Please answer the following questions concerning yourself and your school. Place the number of the most appropriate response in the blank to the right.

1. I teach in:

1) South Bend	3) Mishawaka	
2) Penn-Harris-Madison	4) Other, please specify: _____	_____

2. Did you use the materials in your class?

1) Yes		
2) No		_____

3. If you answered "yes" to the above question, indicate the grade level in which you used the material.

1) Fourth	3) Sixth	
2) Fifth	4) Other, please specify _____	_____

4. If you answered "no" to question 2, please give reason(s):

5. What use did you make of the material after you received it?

1) As supplementary material		
2) As basic material for an instructional unit		
3) As teacher reference material		
4) As part of a display		
5) As material for more capable students		
6) As material for less capable students		
7) As material for the entire class		
8) Other, please specify _____		_____

6. If available, would you use these or similar materials again?

1) Yes	3) No	
2) Not sure		_____

7. Compared with other instructional resources, how effective was the material?

1) very effective	3) somewhat effective	
2) effective	4) no value	_____

8. Compared to other sources and materials that students might use in your class, how important were the learnings gained from this piece of material?

1) very important	3) somewhat important	
2) generally important	4) not at all important	_____

9. Please indicate how much time your class spent using this material:
- 1) less than 1 hour
 - 2) 1 - 2 hours
 - 3) 3 - 5 hours
 - 4) more than 5 hours
 - 5) cannot be determined
10. Please tell in your own words what you believe the students learned from this piece of material. _____
11. Have you any suggestions for improvement?
12. Use this space for any additional comments you wish to make about the material.

Please place my name on your "SPECIAL REQUEST" mail list.

Name: _____ School: _____

Number of Students: _____

Please fold and return via school mail to the appropriate administrator.

Mr. John Davis South Bend Community Schools

Dr. Terry Jackson Mishawaka Schools

Mr. Fred Menchinger Penn-Harris-Madison Schools

If your school is not in the South Bend, Mishawaka, or Penn-Harris-Madison school system, return the opinionnaire by mailing to:

Neil V. Weber
Department of Earth Sciences
Indiana University at South Bend
South Bend, Indiana 46615

ED 137 087

DOCUMENT SOURCE NUMBER: 16

Title: Parkway Environmental Ecological Program

Reference: Environmental Ecological Education Program Interim
Evaluation Report
July 1, 1971 - June 30, 1972
Parkway School District
Chesterfield, Missouri
ED 079 106 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. Environmental Education Cognitive Evaluation (Teacher Knowledge Test)	II A	sample pages
B. Attitude Cluster Survey	II B	sample pages
C. Student Post-Test Results Summary Sheet	VI A	sample page
D. Environmental Attitudes Pre- and Post-Resident Camp Evaluation (Teacher Rating)	I C	sample page
E. Environmental Ecological Education Project Trout Lodge, Pre-Post Test	I A	sample pages

Name _____ Date _____
PLEASE PRINT: Last Name First

ENVIRONMENTAL EDUCATION COGNITIVE EVALUATION

Directions: Read each item carefully and select the one best answer for each multiple choice question. Circle the letter in front of the one you select. For all items which are not multiple choice, do exactly what the item asks you to do, e.g., list, draw, write, etc.

Multiple choice example:

- a) An animal found in a pond might be...
- a. A bird
 - b. A fish
 - c. A squirrel
 - d. A rabbit
 - e. All of these.

1. A space capsule in space, speeding toward the moon with two men aboard, would best be referred to as -
- A. the biosphere.
 - B. a genetic adaptation.
 - C. an ecosystem.
 - D. a community
 - E. a niche.
2. Almost all food webs begin with producers because -
- A. only producers carry on photosynthesis.
 - B. only producers can decompose the materials they use.
 - C. producers are far more numerous than consumers.
 - D. producers are able to grow and reproduce faster than consumers.
 - E. None of the above.
-
14. An objective that deals with emotions or feeling indicated by such words as appreciation, enthusiasm, and motivation, is called-
- A. a cognitive objective.
 - B. an affective objective.
 - C. a faculty objective.
 - D. a prime objective.
 - E. none of these.
15. A verified, proven instructional procedure would be -
- A. to provide a model of terminal performance for children.
 - B. to have children actively respond during instructional procedures.
 - C. to give learners an opportunity to repeatedly practice a newly learned performance.
 - D. to give children prompt and frequent knowledge of their achievement.
 - E. all of these.

Please read the following and then respond to the tasks which follow it.

The Setting

Assume you are teaching the fifth grade. Some of your students discover that there are fossils in the building stones of the community library. You discuss this with a local rock hound and find that these building stones are limestone. They were quarried about 15 miles from the library and hauled to the building site. The expert tells you that the limestone rock was deposited some 310 million years ago when a reef existed at the quarry site under an ancient sea. It becomes something of a challenge to you to get the entire fifth grade involved in a study of fossil animal forms. The children are highly motivated after a visit to the library grounds.

The Problems:

At the end of the fossil unit you want your students to know two other places in the community where they can go to see fossils in building materials. Please write one instructional objective below (in performance terms) that would measure this instructional objective.

Please underline each instructional objective below which conforms to the major parameters of performance objectives re: Mager, Gagne, or Hungerford and Robinson.

Upon completing the unit on limestone fossils the student will...

- A. ...understand how fossils were formed at the bottom of the Silurian sea and be able to appreciate the significance of fossilization.
- B. ...be able to point to five different fossil animal forms when presented with a chunk of fossilized limestone containing at least five different species.
- C. ...be able to point to five different fossil animal forms in a chunk of fossilized limestone and correctly name all five fossils.
- D. ...be able to write a paragraph of no more than 50 words describing how fossils were probably formed on the bottom of the ancient silurian sea.

ENVIRONMENTAL ECOLOGICAL EDUCATION PROJECT
ATTITUDE CLUSTER SURVEY ON ENVIRONMENTAL PROBLEMS

Indicate your reaction to the following statements by checking
the appropriate location on the response line

1. Zone an area so existing air pollution sources are not allowed to affect the appearance of buildings.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

2. Legislate to require industries to periodically remove unsightly refuse from their river property.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

3. Tax hunting license sales to provide funds for restocking gamebirds for all to enjoy.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

4. Educate adults through a television course to appreciate the natural beauty of trees along roads to prevent their destruction.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

5. Levy a fine on farmers who create eyesores by allowing soil to erode.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

6. Offer financial incentives to towns which screen junkyards and dumps from public view.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

7. Demonstrate for a clean air program and its affect on improving the appearance of buildings.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

32. Make a speech in favor of regulating power plant thermal pollution which upsets the biological balance.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

33. Demonstrate for predator management programs to assure a balance in the environment.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

34. Serve on a committee to study the affects of heavy use on plant communities and take steps to protect them.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

35. Cast your vote to eliminate pesticides which are harmful to soil conditions.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

36. Write a letter to expand wilderness areas to reduce over-use.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

37. Write a letter to the editor demanding an immediate clean-up program on buildings discolored by air pollution.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

38. Join an organization devoted to removing refuse from, in, and along a river to beautify it.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

39. Speak for hunting restrictions on gamebirds during the coming year so that there will be more of them for people to enjoy.

Highly Favorable Favorable Undecided Unfavorable Highly Unfavorable

School Robin HillTeacher GoldmanUnit The Changing Scene

Student post-test results will be grouped in the following manner:

Example:

Number of post-test questions given 12

Number of students	Number of questions answered correctly
<u>6</u>	<u>12</u>
<u>5</u>	<u>10</u>
<u>8</u>	<u>9</u>

Number of post-test questions given <u>10</u>		Number of post-test questions given _____	
Number of Students	Number of Questions Answered Correctly	Number of Students	Number of Questions Answered Correctly
38	10		
43	9		
17	8		
11	7		
109 Total Enrolled			

ENVIRONMENTAL ATTITUDES
Pre-and-Post Resident Camp
Evaluation

Student _____

Teacher Evaluator _____

Date _____ Pre _____ Post _____

	Low	High
1. The student relates to his surrounding natural environment.	1	10
2. The student expresses a feeling toward conservation practices.	1	10
3. The student indicates a knowledge of man's interdependence with his natural environment.	1	10
4. The student expresses a concern for the preservation of the environment.	1	10
5. Does the student show a concern for actual waste of classroom materials?	1	10
6. Does the student express a concern for man's survival?	1	10
7. Is interest shown by the student for life process or organisms and their food chains through projects, writings, art, or music expressions?	1	10
8. What priority does the student place on his environment?	1	10
9. Does the student express a desire to participate in out-of-door activities?	1	10
10. Offers rational solutions to environmental problems.	1	

ENVIRONMENTAL ECOLOGICAL EDUCATION PROJECT

TROUT LODGE
Pre-Post Test

1. Which of the following are two ways in which folklore has been passed through the years?
 - a. by word of mouth
 - b. by airmail
 - c. by digestion
 - d. by art objects
2. Select two reasons why folklore of Miles Standish being in this area is not true.
 - a. he never really lived
 - b. he died in Massachusetts 1656
 - c. Ferdinand VI reigned after Standish's death
 - d. folklore never has any truth to it
3. Circle the statements that best describe the conditions of a slope.
 - a. gentle slopes usually have more vegetation than steep
 - b. steep slopes usually contribute to erosion
 - c. slopes can be man-made or natural
 - d. slopes always have cedar trees on them
4. Circle the statements that explain the effects soil compaction have on slopes.
 - a. the firmer the soil is packed, the less water it will hold
 - b. the quantity of plants growing on a slope depends on whether the soil is packed firmer or looser
5. Circle the terms that are used in archery.
 - a. casting
 - b. nocking
 - c. bow
 - d. ham string
 - e. cock feather
6. Circle the two best answers. The most important parts of creative dramatics are to -
 - a. have a stage to act on
 - b. use your imagination
 - c. make a lot of props
 - d. become involved in what you do

14. Water in Sunnen Lake comes from -
a. an underground spring
b. water draining off the hills
c. a hose we turn on every morning
d. a river
15. Extremely different animal and plant communities can be found on different hillsides at Trout Lodge because
a. the sun shines down on the hills at different angles
b. there is more soil on some hillsides
c. some hillsides get hotter than another
d. it rains more on one side of the lake than the other side
16. Place the letter of the correct community in each blank
a. desert community
b. pond community
c. forest community
d. tropical community
- A hillside that is facing north at Trout Lodge is a _____,
but the hillside that is facing south is more like a _____.
17. People often move to or settle in an area because of the money that can be made by digging minerals out of the ground. What are some minerals that brought people to this area. Circle your answer or answers.
a. gold
b. iron
c. lead
d. uranium
e. barite
f. copper
g. steel
18. What were some of the bad effects that occurred when land was completely cleared of trees for the timber industry.
a. the farmers could not grow crops well on this cleared land
b. erosion occurred
c. earthquakes began
d. because all trees were cut down, the timber company had no resource to make money.

Superintendent of Parkway School District
or Mr. Gary Weber
Parkway School District
455 North Woods
Mill Road
Chesterfield, Missouri 63017
(314) 275-2200/434-8412

ED 079 106

DOCUMENT SOURCE NUMBER: 17

Title: Rhode Island Water Resources Center

Reference: Social Studies Variations in Attitudes and
Conceptualization Pertaining to Water Pollution and
Supply
Irving A. Spaulding
Rhode Island University
Kingston Water Resources Center
1969

ED 055 908 (ERIC number)

Instruments:

A. Community Questionnaire

Keyed to
Instrument
Location Index

V

sample pages

Head of Household
Warwick, Rhode Island

July 30, 1969

Dear Sir or Madam:

The Water Resources Center at the University of Rhode Island is studying problems related to water. Some of them are nationwide in significance; other are of local significance. Among them are factors related to water quality and water pollution.

Your help is requested. We would appreciate your filling out the questionnaire which begins below and returning it in the enclosed envelope at no cost to you.

We guarantee your privacy. Your address, but not your name, was secured in a sample of dwelling units in selected parts of Rhode Island. A sample of dwelling units helps people who fill out questionnaires remain anonymous; no information which they submit is used in connection with their names. Neither is it used in connection with the addresses included in the sample.

We will be grateful for the assistance you will give us by filling out and returning the questionnaire. Your contribution to this study can help provide a basis for solving future problems related to water.

Please accept our thanks for your help.

Sincerely,
Irving A. Spaulding
Sociologist
Dept. of Food and Resource Economics

1. For each of the following statements, check one number on the right side of the page to indicate one of the following responses to the statement: 1) strongly agree; 2) agree; 3) uncertain; 4) disagree; 5) strongly disagree. Indicate the responses - 1,2,3,4, or 5 - which is most nearly accurate for you.

A. Ground water: water from a saturated zone in the earth.

1. Human beings have influence and control over ground water only after, through springs or wells, it comes to (or is brought to) the surface of the earth 1 2 3 4 5
2. The supply of ground water will probably never be exhausted. 1 2 3 4 5
3. The capacity of nature, in any given situation, to keep ground water from becoming polluted is unlimited. 1 2 3 4 5
4. Human beings have no influence and control over ground water under the surface of the earth. 1 2 3 4 5
5. Ground water usually gets into the earth a long distance from the place it comes out or is brought out. 1 2 3 4 5
6. Human beings cannot pollute ground water. 1 2 3 4 5
7. Ground water is usually located far beneath the surface of the earth. 1 2 3 4 5
8. As it comes to, or is brought to, the surface of the earth, ground water is usually suitable for human use. 1 2 3 4 5

B. Surface water: exposed bodies of fresh water.

1. Surface water usually fills on the earth a long distance from the place it is eventually used. 1 2 3 4 5
2. As it is usually found in streams, ponds, and reservoirs, surface water is suitable for human use. 1 2 3 4 5
3. The supply of surface water will probably never be exhausted. 1 2 3 4 5
4. Human beings cannot pollute surface water 1 2 3 4 5
5. The capacity of nature in any given situation, to purify polluted surface water is unlimited. 1 2 3 4 5
6. Most surface water falls on very high places and runs down to low ones. 1 2 3 4 5
7. Human beings have no influence and control over surface water in streams, ponds, and reservoirs. 1 2 3 4 5
8. Human beings have influence and control over surface water from the time it falls until the time it is used. 1 2 3 4 5

C. Action

- | | |
|---|-----------|
| 1. Human beings can control water to be sure they have an adequate supply. | 1 2 3 4 5 |
| 2. Human beings should control water pollution. | 1 2 3 4 5 |
| 3. Human beings do control water to be sure they have an adequate supply. | 1 2 3 4 5 |
| 4. Human beings can control water pollution. | 1 2 3 4 5 |
| 5. Human beings should control water to be sure they have an adequate supply. | 1 2 3 4 5 |
| 6. Human beings do control water pollution. | 1 2 3 4 5 |

II. Education of Household Head

1. Formal school training. Check the highest grade completed.
 - a. Grade school : 1 2 3 4 5 6 7 8
 - b. High school : 1 2 3 4
 - c. College : 1 2 3 4
 - d. Graduate Study: 1 2 3 4
 - e. Other : 1 2 3 4 5 6 7 8
 Degrees: MS or MA _____; PhD _____; Other _____
2. Non-college professional, technical, or trade school training?
Yes _____, No _____.

III. Many of the following statements will seem very similar. They are different though. For each statement, check the number which gives the most nearly accurate response for you.

- | | |
|--|-----------|
| 1. A human being has responsibility for events and occurrences he cannot influence and control. | 1 2 3 4 5 |
| 2. A human being has responsibility for events and occurrences he should not influence and control but does. | 1 2 3 4 5 |
| 3. A human being has responsibility for events and occurrences he should, can, and does influence and control. | 1 2 3 4 5 |
| 4. A human being has responsibility for events and occurrences he does influence and control. | 1 2 3 4 5 |
| 5. A human being has responsibility for events and occurrences he can - i.e., has the capability to - influence and control, but doesn't | 1 2 3 4 5 |
| 6. A human being has responsibility for events and occurrences he should influence and control but cannot and doesn't. | 1 2 3 4 5 |
| 7. A human being has responsibility for events and occurrences he should not influence and control and can, but does not. | 1 2 3 4 5 |
| 8. A human being has responsibility for events and occurrences he should influence and control but doesn't. | 1 2 3 4 5 |
| 9. A human being has responsibility for events and occurrences he should and can influence and control, but doesn't. | 1 2 3 4 5 |
| 10. A human being has responsibility for events and occurrences he does not influence and control | 1 2 3 4 5 |
| 11. A human being has responsibility for events and occurrences he should and can influence and control. | 1 2 3 4 5 |
| 12. A human being has responsibility for events and occurrences he should not influence and does. | 1 2 3 4 5 |
| 13. A human being has responsibility for events and occurrences he should not influence and control, but can and does. | 1 2 3 4 5 |
| 14. A human being has responsibility for events and occurrences he should influence and control, but cannot, yet does. | 1 2 3 4 5 |
| 15. A human being has responsibility for events and occurrences he should influence and control, but cannot. | 1 2 3 4 5 |
| 16. A human being has responsibility for events and occurrences he should not influence and control, but can. | 1 2 3 4 5 |
| 17. A human being has responsibility for events and occurrences he should influence and control. | 1 2 3 4 5 |
| 18. A human being has responsibility for events and occurrences he can - i.e., has the capacity to - influence and control. | 1 2 3 4 5 |
| 19. A human being has responsibility for events and occurrences he cannot influence and control, but does. | 1 2 3 4 5 |

IV. E/T. For each of the following statements, check the answer which is most nearly accurate for you.

WITH RESPECT TO WATER POLLUTION, I FEEL

RESENTFUL

Always ___ Very often ___ Often ___ Sometimes ___ Seldom ___ Very Seldom ___ Never ___
This feeling is usually:
Very Strong ___ Strong ___ Moderate ___ Weak ___ Very Weak ___.

RELAXED

Always ___ Very often ___ Often ___ Sometimes ___ Seldom ___ Very Seldom ___ Never ___
This feeling is usually:
Very Strong ___ Strong ___ Moderate ___ Weak ___ Very Weak ___.

ANGRY OR MAD

Always ___ Very Often ___ Often ___ Sometimes ___ Seldom ___ Very Seldom ___ Never ___
This feeling is usually:
Very Strong ___ Strong ___ Moderate ___ Weak ___ Very Weak ___.

MONOTONY

Always ___ Very Often ___ Often ___ Sometimes ___ Seldom ___ Very Seldom ___ Never ___
This feeling is usually:
Very Strong ___ Strong ___ Moderate ___ Weak ___ Very Weak ___.

BORED

Always ___ Very Often ___ Often ___ Sometimes ___ Seldom ___ Very Seldom ___ Never ___
This feeling is usually:
Very Strong ___ Strong ___ Moderate ___ Weak ___ Very Weak ___.

TENSE OR ANXIOUS

Always ___ Very Often ___ Often ___ Sometimes ___ Seldom ___ Very Seldom ___ Never ___
This feeling is usually:
Very Strong ___ Strong ___ Moderate ___ Weak ___ Very Weak ___.

-
- V. S-1 House value: How much would the house in which you are living sell for at the present time?
- | | |
|--------------------------|---------------------------|
| a. Under \$10,000 _____ | d. \$20,000-24,000 _____ |
| b. \$10,000-14,999 _____ | e. \$25,000-29,999 _____ |
| c. \$15,000-19,999 _____ | f. \$30,000 or more _____ |
- S-2 Income: Check the income range which indicates the total income for all your household members during 1968.
- | | | |
|--------------------------|--------------------------|---------------------------|
| a. \$0 5,999 _____ | e. \$15,000-17,999 _____ | i. \$27,000-29,999 _____ |
| b. \$6,000-8,999 _____ | f. \$18,000-20,999 _____ | j. \$30,000-32,999 _____ |
| c. \$9,000-11,999 _____ | g. \$21,000-23,999 _____ | k. \$33,000-35,999 _____ |
| d. \$12,000-14,999 _____ | h. \$24,000-26,999 _____ | l. \$36,000 or more _____ |
- S-3 Occupation of Household Head: Write in the type of work you did in 1968 to earn your living. Be as specific as possible.

Irving A. Spaulding
Professor of Resource Economics and Sociology
University of Rhode Island
Kingston, Rhode Island 02881

ED 055 908

DOCUMENT SOURCE NUMBER: 18

Title: South Dakota Administrators Environmental Manual

Reference: Administrator's Environmental Education Evaluation Manual
Chester Area Schools, South Dakota
Interlakes Environmental and Outdoor Education Program
South Dakota University
Vermillion School of Education
March 1971

Instruments:

Keyed to
Instrument
Location Index

A. Administrator's Staff Project Evaluation (Pre-Test)	III B	sample pages
B. Parent Self-Evaluation	IV	sample pages
C. Adult Self-Study on Environmental Education V		sample pages
D. Teacher's Self-Evaluation	II D	sample pages

Survey Instrument #1

ADMINISTRATOR STAFF PROJECT EVALUATION (Pre-test)

By the very nature of this survey, it should be assured that the information gained will not be used to identify you as the respondent. All information gained will be held in the confidence of the evaluator, and only the composite results will be made known to the advisory council for the Interlakes Project.

Please complete the following survey form and mail it to Dr. Bruce G. Milne, Educational Research and Service Center, School of Education, University of South Dakota, Vermillion, South Dakota, 57069.

A. Staff and Program Analysis

Read each item carefully and underline quickly the phrase that best expresses your feelings about the statement.

1. The teachers in our system are generally well trained and competent to teach an environmental education curriculum.

Strongly Agree Agree Undecided Disagree Strongly Disagree

2. Most of the teachers in our system have adequate time for planning and preparing outdoor learning activities.

Strongly Agree Agree Undecided Disagree Strongly Disagree

3. Generally our science curriculum program is as good as any other school I am familiar with.

Strongly Agree Agree Undecided Disagree Strongly Disagree

4. Our teachers have shown little enthusiasm for outdoor learning activities in their teaching programs.

Strongly Agree Agree Undecided Disagree Strongly Disagree

5. Our school program can use new and innovative programs to upgrade its quality of education.

Strongly Agree Agree Undecided Disagree Strongly Disagree

6. Generally our teachers are cooperative and open for change and will support an environmental education program.

Strongly Agree Agree Undecided Disagree Strongly Disagree

7. The major objective of our educational program has been to prepare children for a responsible and contributing life as adults.

Strongly Agree Agree Undecided Disagree Strongly Disagree

8. In general, our teachers are pretty well informed about newer trends in education.
- Strongly Agree Agree Undecided Disagree Strongly Disagree
9. Our program is highly structural and adopting and implementing an environmental education program will be difficult.
- Strongly Agree Agree Undecided Disagree Strongly Disagree
10. Most of the teachers make an effort to involve students in the planning of their program.
- Strongly Agree Agree Undecided Disagree Strongly Disagree
11. The teachers in our school are active in community affairs and concerned about the community's actions to improve the environment.
- Strongly Agree Agree Undecided Disagree Strongly Disagree
12. Most of our teachers are concerned about the pupils' personal and social problems as well as their school affairs.
- Strongly Agree Agree Undecided Disagree Strongly Disagree
13. In general, our teachers use a wide variety of sources of information in teaching science and environmentally related subjects.
- Strongly Agree Agree Undecided Disagree Strongly Disagree
14. Many "outside resource people" are used in our school program. (speakers, experts, demonstrators, etc.)
- Strongly Agree Agree Undecided Disagree Strongly Disagree
15. Evaluation in our school of a student's ability in science is generally based on a student's oral and written performance on tests.
- Strongly Agree Agree Undecided Disagree Strongly Disagree
16. Most of our teachers provide for learning experiences outside of the classroom. (field trips, exhibits, etc.)
- Strongly Agree Agree Undecided Disagree Strongly Disagree
17. Teachers generally use audio-visual aids equipment in teaching environmentally related subjects.
- Strongly Agree Agree Undecided Disagree Strongly Disagree
18. There is adequate use of the resources of our community in our educational program.
- Strongly Agree Agree Undecided Disagree Strongly Disagree

Survey Instrument #2

--Name: PARENT SELF-EVALUATION (Pre-test)

--Purpose: With the results of this survey, it should be possible to determine the existing attitudes and enthusiasms of the parents of students in the various communities involved in the Interlakes Project toward environmental concerns, education, and the project itself. Such a survey should also indicate the extent of participation in general school programs and activities which will serve as guidelines for analyzing parent involvement in the Project.

--Directions: A copy of this survey instrument should be sent home with selected students. One of the parents should complete the questionnaire and return it to the school in a sealed envelope. The sealed envelopes should be transmitted to the University of South Dakota where the results will be tabulated and analyzed. Since some of the information asked for is somewhat confidential, it would be well if the advisory council would guarantee the necessary confidence to the parents. Only the composite results will be known to the advisory council and other school staff members.

--All tabulation of this Instrument will be done by the Educational Research and Service Center, School of Education, University of South Dakota, Vermillion.

Survey Instrument #2

PARENT SELF-EVALUATION

We are asking your help in an evaluation of a special program being carried on by the local schools and the schools in this area. The program is concerned with environmental education, and your child will be expected to participate actively in it. Would you please fill out the following questionnaire, seal it in the envelope, and return it to the school with your child. The sealed envelope will be forwarded to the University of South Dakota for tabulation. Your frankness in answering the questions is earnestly desired.

Mark the blank which best describes your answer to the statement.

1. In regard to the Interlakes Environmental and Outdoor Education Project going on in our schools, I feel that
 - ☐ A. I am fairly well informed about the Project.
 - ☐ B. I know about the Project.
 - ☐ C. I know very little, if anything about the Project.
 - ☐ D. I am completely unaware of the Project.
2. The Interlakes Project is being funded mostly by funds made available through -
 - ☐ A. local tax funds
 - ☐ B. state funds
 - ☐ C. federal funds
 - ☐ D. local and state tax money
 - ☐ E. donations
3. The Interlakes Project in environmental education will provide a learning situation out-of-doors -
 - ☐ A. at a designated site
 - ☐ B. throughout the county
 - ☐ C. near the Vermillion River
 - ☐ D. in each school yard
4. The Interlakes Project is being directed by -
 - ☐ A. the local school board
 - ☐ B. a local director and advisory council
 - ☐ C. an area director and an advisory council
 - ☐ D. the local school administration
5. The Interlakes Project is -
 - ☐ A. the first such environmental education program in our area
 - ☐ B. the only environmental education program in the state
 - ☐ C. the first approved out-of-doors education program in this part of the state
 - ☐ D. none of the above
 - ☐ E. all of the above

Statement	Strongly Agree	Agree	Tend to Disagree	Disagree	Strongly Disagree
4. The teachers do a good job of teaching about conservation.					
5. There should be more opportunities for the students to study out-of-doors.					
6. Every community should demand that the schools have an environmental education program.					
7. The schools should stick to the 3 R's and forget about taking on anymore programs.					
8. I don't think we need to be too concerned about pollution in our community.					
9. There is too much emphasis being placed on conservation, environment, and pollution.					
10. If we are going to solve the environmental problems, we are going to have to build proper attitudes in the young people.					
11. In general, young people have a good understanding of the problems of our environment.					
12. The best way to learn about nature and the beauty of nature is to get out-of-doors and study it.					
13. There seems to be more smoke dust and smells in the air than there used to be.					
14. The children today are better informed about what is going on in the world than when I was young.					
15. Students are given too much freedom in our school.					
16. Most of the teachers my child has in school really never get to know him (or her) as an individual.					
17. The teachers should spend more time with the individual.					
18. The teachers do a good job of making school work exciting and meaningful.					
19. Parents should be given more of an opportunity to get acquainted with the school's program.					
20. Most of the parents are fairly well satisfied with our school program.					

Survey Instrument #3

ADULT SELF-STUDY ON ENVIRONMENTAL EDUCATION

Please indicate your attitudes, interest, or concerns for environmental education in our school system and community by marking the response which best describes your feelings about the following statements.

A. Underline your answer.

1. Every community should demand that the schools have an environmental education program.

Strongly Agree Agree Undecided Disagree Strongly Disagree

2. The schools are doing a good job of educating our young people about the environment already.

Strongly Agree Agree Undecided Disagree Strongly Disagree

3. The schools should stick to the 3 R's and forget about taking on any more programs.

Strongly Agree Agree Undecided Disagree Strongly Disagree

4. Concerns about pollution, environment, conservation, and ecology are greater in the cities and more populated areas than they are in our community.

Strongly Agree Agree Undecided Disagree Strongly Disagree

5. We have many organizations in our community which are already doing quite a bit about pollution.

Strongly Agree Agree Undecided Disagree Strongly Disagree

6. When you try to stop pollution in our community, you are going to step on somebody's toes and run into opposition.

Strongly Agree Agree Undecided Disagree Strongly Disagree

7. Most of the people in our community are fairly responsible and will take an active role in fighting pollution problems.

Strongly Agree Agree Undecided Disagree Strongly Disagree

8. No community improvement program should be carried on that is injurious to a business.

Strongly Agree Agree Undecided Disagree Strongly Disagree

9. It's the industries and businesses who are causing the major pollution problems; there isn't much an individual can do.

Strongly Agree Agree Undecided Disagree Strongly Disagree

B. Check your answer.

1. Are you aware of the emphasis being placed on environmental education in the schools?
☐ fairly well informed
☐ somewhat informed
☐ not aware at all
2. Did you know that federal funds have been given to the local schools for environmental education?
☐ Yes
☐ No
3. Have you been aware of the increased amount of emphasis being placed upon the environment across the nation?
☐ very much
☐ somewhat aware
☐ hadn't paid any attention
4. Have you been aware of "smog" in our cities and countryside in recent months or years?
☐ quite often
☐ sometimes
☐ not aware of it
5. How would you classify your personal concern for the environment, ecology, pollution, and conservation?
☐ very concerned
☐ somewhat concerned
☐ limited concern
☐ not too concerned
6. How do you view all the publicity the pollution problem is getting?
☐ too much and exaggerated
☐ about right
☐ we need more of it; the problem needs publicity
7. Do you think there should be legislation to control air, water, and land pollution?
☐ definitely
☐ limited
☐ No
8. Are you aware of any polluted waters in your community or area?
☐ definitely
☐ I think there are some
☐ No

Survey Instrument #4

TEACHER SELF-EVALUATION

Directions: Check your response to each of the following items in the proper space at the right. This information is for a school-wide survey and not an evaluation of you or your work; however, we must know your personal opinions. There are no right or wrong answers.

A. Class Presentations and Activities

To what extent do you -	Often	Occasionally	Seldom	Never
1. present specific lesson units which deal with the environment?				
2. present specific lesson units on the pollution problem?				
3. provide for visual aids which deal with the problems of conservation?				
4. use student ideas regarding environmental concerns in developing your teaching units?				
5. provide resource materials on environmental concerns?				
6. provide out-of-doors educational experiences for your students?				
7. provide for using the resources of the community in your teaching?				
8. provide for laboratory type experiences which allow children to watch things grow?				
9. encourage children to bring living things to school to share with others?				
10. permit students to discuss possible solutions to social and economic problems?				
11. provide experiences which encourage children to observe the beauty of nature?				
12. provide for learning experiences which emphasize the diversity of things in nature?				
13. provide for assignments which require the students to collect examples of nature's handiwork (such as seeds, leaves, flowers)?				
14. provide for learning experiences which emphasize the interrelationship between natural things (such as soil and water, soil and animals, etc.)?				
15. plan demonstration units which show man's dependency on the soil, water, and air?				
16. help students understand that you can't disturb something in nature without disturbing other things?				

	Strongly Agree	Agree	Tend to Agree	Tend to Disagree	Disagree	Strongly Disagree
23. There are likely to be some people in the community who will get upset about our talking about local practices which cause pollution, etc.						
24. Grade school children are too young to really understand what the environmental concerns are all about.						
25. Regardless of their personal views, most of the teachers will get behind the Project and make it work as best we can.						

D. Training and Experience

Check the answer which best describes your response.

1. I would view my interest in the Interlakes Project as
 - ☐ A. extremely interested.
 - ☐ B. somewhat interested.
 - ☐ C. mildly interested.
 - ☐ D. very little interest, if any.
2. Regarding my academic training for environmental education
 - ☐ A. I am very well trained.
 - ☐ B. I have some training.
 - ☐ C. I have very little training.
 - ☐ D. I have no training for it at all.
3. How many workshops or special training sessions have you attended which dealt largely with environmental education?
 - ☐ A. three or more
 - ☐ B. one or two
 - ☐ C. none
4. How much actual teaching have you done in the area of environmental education?
 - ☐ A. I have taught this extensively.
 - ☐ B. I have had some experience.
 - ☐ C. I have had very little experience.
 - ☐ D. I have not taught this as such.
5. Do you consider out-of-door education as being effective?
 - ☐ A. very effective
 - ☐ B. somewhat effective
 - ☐ C. limited effectiveness
 - ☐ D. no real value

DOCUMENT SOURCE NUMBER: 19

Title: Pennsylvania Elementary Teacher's Opinions

Reference: A Study of Elementary Teacher's Opinions: An Evaluation
Margaret A. Ferrier
State College Area School District
Pennsylvania
June 1972

ED 086 497 (ERIC number)

Instruments:

A. Teacher's Opinions

Keyed to
Instrument
Location Index

II B

sample pages

1. Environmental Education is a vague term.
2. I am not certain how environmental education relates to my classroom.
3. Environmental education is a separate subject and should be taught as an entity.
4. Environmental education should be integrated into all areas of the curriculum.
5. There should be a district-wide environmental education curriculum.
6. Each of the schools in the State College Area Schools should develop its own environmental education curriculum.
7. No child should be eliminated from any aspect of the environmental education program.
-
-
-
13. As soon as possible, the Pennsylvania State University should be phased from the project.
14. The State College Area teachers should solicit help from the University, but should prepare themselves to conduct the environmental education program independently.
15. The State College Area Schools should maintain a contractual relationship for resource and consultant services with Pennsylvania State University.
16. The environmental education staff should help the teachers plan lessons which show the interrelationship of man to his environment.
17. The environmental education staff should help the teacher plan and execute lessons which show the interrelationship of man to his environment.
-
-
-
24. No child should be eliminated from the Stone Valley resident school program due to financial need.
25. All elementary students in the district should have one opportunity to attend a week resident school program at Stone Valley.

27. Each school should decide a policy on student participation in the resident school program at Stone Valley.
28. Each classroom teacher should decide a policy on student participation in the resident school program at Stone Valley.
29. A district-wide policy on student participation in the resident school program at Stone Valley should be established.

37. Teachers should have an opportunity to observe other teachers conducting lessons in environmental education.
38. Environmental education materials should be available on loan from the Project Coordinator.
39. I would prefer to be an innovator of curriculum in any area but environmental education.
40. If given a choice in professional improvement, I would choose any area but environmental education.

DOCUMENT SOURCE NUMBER: 20

Title: Tomkins-Seneca-Tioga Board of Cooperative Services

Reference: The Development and Evaluation of Audio-Tutorial Programmed
Instruction in Learning Concepts of Ecology and Conservation
Final Report

Richard W. Presnell
Tompkins-Seneca-Tioga Board of Cooperative Services
September 1971

ED 062 189 (ERIC number)

Instruments:

A. School Staff Questionnaire

Keyed to
Instrument
Location Index

VI C

sample page

SCHOOL STAFF QUESTIONNAIREENVIRONMENTAL EDUCATION PROGRAM

1. If each of the ten environmental education audio-taped lessons were housed separately in labeled boxes, do you think you could set them up for student use? (yes, no, comments - USE ANSWER SHEET FOR ALL ANSWERS)
2. Do you think the process of setting up the lessons would take too much of your time to be worthwhile? (yes, no, comments)
3. Do you think mechanical problems with the lesson hardware (tape recorder, slide viewer, ear phones) would result in too much time and trouble to be worth managing the lessons? (yes, no, comments)
4. If you were to continue these lessons in your school next year, where would you prefer to have them placed -- that is, where do you think the lesson booths would best be placed in your school? (corerom classroom, science classroom, learning-center, social science classroom, other)
5. If you were in charge of figuring out how to schedule students in order to get them through the audio-taped lessons during the season of the year for which they are intended, would you find this task; to be impossible, very difficult, difficult, a minor problem, no problem, other?
6. Briefly describe what factors you feel are most responsible for regulating the number of students who can go through the lessons in a given period of time -- such as a day or a week.
7. Do you think the students have enjoyed the environmental education lessons? (yes, no, comments)
8. If you think the students are learning from the environmental education audio-taped lessons, please briefly cite some reasons for your belief.
9. Do you think the students' listening skills have improved BECAUSE OF the listening requirements of the audio-taped lesson presentation? (yes, no, comments)
10. Have you heard the students talking about the lessons, or using words or ideas from the audio-taped lessons in conversations with each other? (yes, no, comments)
11. Have the students talked about the lessons or used words and/or ideas from the lessons in conversations with you? (yes, no, comments)
12. Have parents mentioned something about the environmental education program or lessons during parent-teacher conferences or in other conversations with you? (yes, no, comments)

DOCUMENT SOURCE NUMBER: 21

Title: Washington CISPUS Evaluation Kit

Reference: CISPUS Evaluation Kit for CISPUS Preparatory Workshop
June 12-14, 1973
Washington Office of the State Superintendent of Public
Instruction
Olympia
1973

ED 104 635 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. General Plan	VI D	sample page
B. Teacher's Log	VI C	sample page
C. Kid's Expectations Upon Arriving at Camp	I C	sample page
D. Kid's Closing Assessment	I E	sample page
E. A Parents Evaluation	IV	sample page

Mr. Harry Johnson
Washington Office of
the State
Superintendent for
Public Instruction
Old Capitol Bldg.
Olympia, Wash.
98540

GUIDELINES
TO HELP YOU
PLAN YOUR GROUP'S SOJOURN
IN CISPUS
ENVIRONMENTAL LEARNING CENTER

ED 104 635

A Checklist and
an Evaluation Plan

General Plan

1. Which of the following general types of purposes do you wish to serve by bringing your group? Please mark as many as apply:

- | | |
|---|--|
| A. ☐ Conservation | H. ☐ Teacher Training |
| B. ☐ Outdoor Education | I. ☐ Improve Relations &
Communications Between
Generations |
| C. ☐ Science Education | J. ☐ Individual Enrichment |
| D. ☐ Improve Intergroup Relations
and Communication | K. ☐ Individual Maturation |
| E. ☐ Recreation | L. ☐ Child Study |
| F. ☐ Survival Training | M. ☐ Other (please specify)
_____ |
| G. ☐ Humanities Education | |

2. Who will be the person --

- * _____ responsible for making planning decisions?
- _____ responsible for directing the group while they are
Cispus?
- _____ responsible for collecting evaluation data?
- _____ responsible for arranging transportation?
- _____ responsible for conducting the program?

3. What dates are you thinking of?

- On _____ beginning, arriving at around _____ o'clock.
- On _____ leaving at around _____ o'clock.
- or On _____ beginning, arriving at around _____ o'clock.
- On _____ leaving at around _____ o'clock.

4. About what sizes will your sub-groups be?

_____ adults

_____ about _____ years old

_____ about _____ years old

5. What kind of transportation do you plan to use to and from Cispus?

☒ District Buses

☒ Chartered Buses

☐ Private Cars

* Until and unless we are notified otherwise, we will communicate with this person about arrangements.

AT THE END OF EACH DAY AT CISPUS

Teachers' Log*

Date _____

The five major activities of the day were:

Ugh!

Wow!

1. _____	$\frac{1}{0}$	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$
2. _____	$\frac{1}{0}$	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$
3. _____	$\frac{1}{0}$	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$
4. _____	$\frac{1}{0}$	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$
5. _____	$\frac{1}{0}$	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$

The general type of purpose for each was (please enter in circle after activity -- see list of types A-M, p.2). The overall level of success for each was (please enter on scale after activity):

The three best features of the day were:

1. _____
2. _____
3. _____

Our suggestions as to how the day could have been more profitably managed are:

Teachers _____

(Please write any minority opinion
on back.)

*To be filled out by a triad of teachers.

KIDS' EXPECTATIONS

UPON ARRIVING AT CISPUS

(Select randomly and interview one out of five kids)

Please record here, in writing, or on the tape with your voice, the answers to these eight questions:

1. What is the date today? _____ What school are you from? _____
2. Have you been to Cispus before? _____ What was the best experience you had at Cispus before? _____
3. Have you been away from home without your parents before? _____
4. What do you expect to do while you're at Cispus? _____
5. What do you expect to like most? _____
6. What do you expect to like least? _____
7. How much part did you have in planning what you are going to do here at Cispus? (Circle the appropriate cross.)

+	+	+	+	+
I had no part	I had a little part	I had some part (about my share)	I had a large part	I planned it all

8. Guess who, from among your group, we are talking about when we say:

This one is always happy _____

This one is always worried _____

This one is the hardest worker _____

This one is the smartest out of class _____

This one is the best leader _____

This one can't take a joke _____

This one is always picking on others _____

This one has the most friends _____

This one has the fewest friends _____

You would most like to sit next to him or her _____

You would most like to work on a class project with him or her _____

You would most like to have him or her as your friend _____

KIDS' CLOSING ASSESSMENT
UPON LEAVING CISPUS

(Select randomly and interview one out of five kids*)

Please record here, in writing, or on the tape with your voice, the answers to these eight questions:

1. What is the date today? _____
2. What school are you from? _____
3. Who is your teacher or group leader? _____
4. What were the three best things that happened to you while you were at Cispus This time?
 1. _____
 2. _____
 3. _____
5. What experiences did you have which you had never had before?

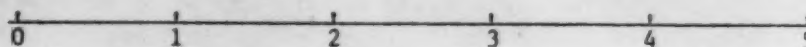
6. What were the worst things that happened to you while you were at Cispus this time?

7. What would you suggest to make visits to Cispus better?

8. How would you rate your experience at Cispus on this scale?

Ugh!

Wow!



*Use the same kids as the ones used on "Expection" interview.

OF HIS CHILD'S CISPUS EXPERIENCE

Name, number or
identifying mark

(A month or two later)

A month or two ago your child went to Cispus for a short time. We have attempted to assess the value of that experience in many ways, and now we would like to complete our evaluation by getting your personal opinion of the effect that the Cispus experience had on your child.

It may be that you do not believe that the Cispus experience had any lasting (until at least now) effect. Or, it may be that you think the experience changed the entire course of this life. We believe that a statement of your impressions and beliefs regarding the Cispus experience will, to the extent that it is a full and candid statement, help us to make the future educational experiences of your children and the others in this school richer and more valuable.

The following "stems" are provided merely as possibly helpful jogs to your memory:

1. At Cispus, for the first time in his/her life, he/she (did) _____

2. At Cispus, he/she learned that _____

3. Because he/she went to Cispus, he/she now is able to _____

4. Before she/he went to Cispus, she/he (did) _____

5. Because he/she went to Cispus, he/she now understands _____

Note: Please use back of page to continue commentary whenever necessary.

DOCUMENT SOURCE NUMBER: 22

Title: Willoughby-Eastlake

Reference: Student Impact in the Cognitive and Affective Domains:
Report of the Field Evaluation of the Environmental
Curriculum Materials
Willoughby-Eastlake School District
Willoughby, Ohio
1975

ED 125 857 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. Kindergarten through Second Grade Test	I A	sample pages
B. Third and Fourth Grade Level Test	I A	sample pages

Wilbur S. Miller
 Director of Elementary Education
 Willoughby-Eastlake
 Board of Education
 37047 Ridge Road
 Willoughby, Ohio 44094

ED 125 857

DIRECTIONS

I. PATTERNS I

THE BOOKLET THAT YOU HAVE ON YOUR DESKS HAVE PICTURES IN THEM. WE ARE GOING TO DO SOMETHING WITH THESE PICTURES. ON THIS PAGE YOU SEE TWO PAIRS OF PICTURES. ONE PICTURE SHOWS THREE CHILDREN WATCHING A LITTLE PLANT. THE OTHER PICTURE SHOWS THREE CHILDREN WATCHING A BIG PLANT. WHICH PICTURE WOULD HAPPEN FIRST. PUT YOUR FINGER ON THE PICTURE OF WHICH WOULD HAPPEN FIRST.

Check to make sure the students have their finger on the correct picture. Point out that the children in the pictures are watching the same plant. Then say,

TAKE YOUR PENCILS (OR PENS). LOOK AT THE PICTURES AGAIN. MAKE AN "X" ON THE PICTURE THAT SHOWS WHICH SHOULD COME FIRST.

Illustrate on your test booklet, and check to make sure all of the children know what to do. If the children understand the directions, say,

NOW, WE WILL MARK THE PICTURES TOGETHER. I WILL READ WHAT THE PICTURES ARE ABOUT, AND YOU ARE TO MARK AN "X" ON THE PICTURE THAT WOULD COME FIRST.

TURN TO THE NEXT PAGE.



I. EXAMPLE



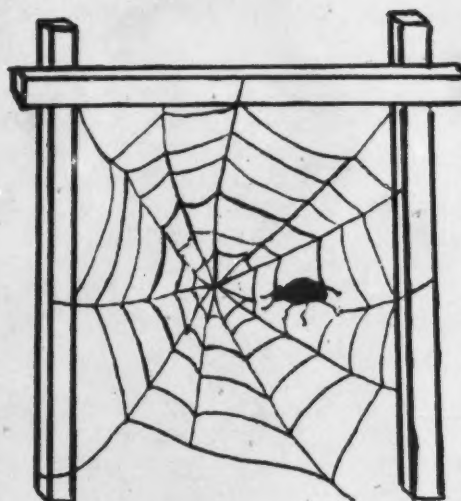
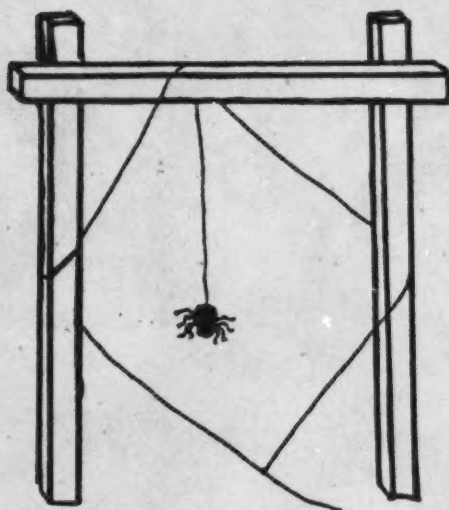
EXPLANATIONS TO QUESTIONS: PATTERNS I

TO BE READ BY TEACHER TO STUDENTS.

1. THESE ARE PICTURES OF SPIDERS SPINNING WEBS. MARK AN "X" ON THE PICTURE THAT WOULD COME FIRST.
2. THIS IS A PICTURE OF A LADY MEASURING A BOY, AND A PICTURE OF A BABY PLAYING. MARK AN "X" ON THE PICTURE THAT WOULD COME FIRST.
3. THIS IS A PICTURE OF A FARMER PICKING APPLES, AND A PICTURE OF FARMER SELLING FRUIT AND VEGETABLES. MARK AN "X" ON THE PICTURE THAT WOULD COME FIRST.
4. THIS IS A PICTURE OF A BOY WATCHING A PLANT GROW, AND PICTURE OF A BOY PLANTING A SEED. MARK AN "X" ON THE PICTURE THAT WOULD COME FIRST.
5. THIS IS A PICTURE OF THINGS MADE OF WOOD, AND A PICTURE OF A STUMP AND A TREE. MARK AN "X" ON THE PICTURE THAT WOULD COME FIRST.
6. THIS IS A PICTURE OF A CATERPILLAR, AND A PICTURE OF A BUTTERFLY. MARK AN "X" ON THE PICTURE THAT WOULD COME FIRST.

DRAFT

QUESTION 1:



QUESTION 2:



63

K/2 - 4

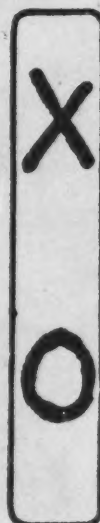
TO BE READ BY THE TEACHER TO THE STUDENTS

45. THE LEFT PICTURE IS OF A TOWER WITH A CLOCK IN IT. THE RIGHT PICTURE IS ALSO OF A TOWER WITH A CLOCK. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
46. THE LEFT PICTURE IS OF A GIRL PICKING FLOWERS. THE RIGHT PICTURE IS OF A GIRL ICE SKATING. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
47. THE RIGHT PICTURE IS OF SOME TADPOLES, AND THE LEFT PICTURE IS OF SOME FROGS. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
48. THESE ARE PICTURES OF CHILDREN PLAYING IN THE YARD. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
49. THE LEFT PICTURE IS OF A BOY TRYING TO REACH ON TO A BENCH. THE RIGHT PICTURE IS OF A BOY HAMMERING NAILS. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
50. THE LEFT PICTURE IS OF A BOY WALKING HIS DOG. THE RIGHT PICTURE IS OF A BOY READING A BOOK, WITH HIS DOG SITTING NEARBY. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
51. THESE ARE PICTURES OF TWO BOYS SITTING ON SOME STEPS. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
52. THE LEFT PICTURE IS OF A HEN WITH SOME EGGS IN A NEST. THE RIGHT PICTURE IS OF SOME BABY CHICKENS. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
53. THE LEFT PICTURE IS OF A TREE WITH LEAVES. THE RIGHT PICTURE IS OF A TREE FROM WHICH THE LEAVES HAVE FALLEN OFF. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
54. THE LEFT PICTURE IS OF SOME WOOLLY BEAR CATERPILLARS EATING PLANTS. THE RIGHT PICTURE IS OF SOME WOOLLY BEAR CATERPILLARS SPINNING A CACoon. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.
55. THE LEFT PICTURE IS OF ONE BIRD FEEDING YOUNG BIRDS IN A NEST. THE RIGHT PICTURE IS OF TWO BIRDS FEEDING YOUNG BIRDS IN THE NEST. IF THE RIGHT PICTURE SHOWS THAT A REAL CHANGE (MORE THAN A DAY) HAS TAKEN PLACE, CIRCLE THE "X" IN THE BOX. IF NO REAL CHANGE HAS TAKEN PLACE, CIRCLE THE "O" IN THE BOX.

QUESTION 45:

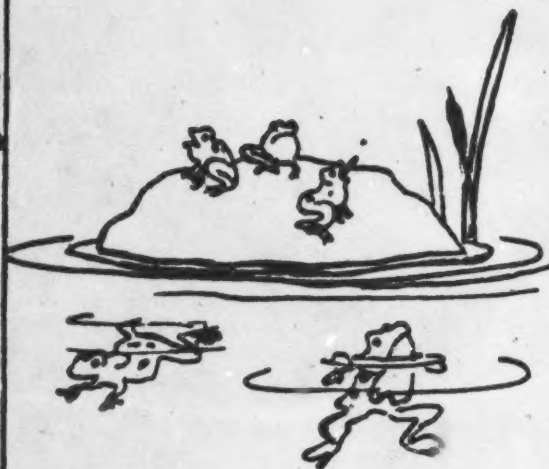


QUESTION 46:

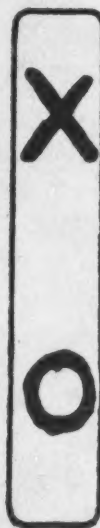


K/2 - 39

QUESTION 47:



QUESTION 48:



K/2 - 40

ENVIRONMENTAL EDUCATION: CURRICULUM, INFORMATION, AND TRAINING

Longfellow Elementary School
35200 Stevens Boulevard
Eastlake, Ohio 44094
Ph: 216-946-5000 ext. 358

Sponsored by a Grant from the U. S. Office of Education

through the

Willoughby-Eastlake City Schools, Willoughby, Ohio

Cognitive and Affective Evaluation of Environmental Concepts

Grades 3-4

INSTRUCTIONS:

IN THIS BOOKLET ARE QUESTIONS CONCERNING WHAT STUDENTS MAY KNOW OR FEEL ABOUT THE ENVIRONMENT. PLEASE ANSWER THE QUESTIONS AS HONESTLY AS POSSIBLE. THERE IS NO PENALTY FOR WRONG ANSWERS.

ALL ANSWERS ARE TO BE RECORDED ON THE ACCOMPANYING ANSWER SHEET. PLEASE FILL IN THE INFORMATION BLANKS AT THE TOP OF OF THE ANSWER SHEET BEFORE STARTING THE TEST.

Teachers: The test may be given in several sittings to avoid fatigue. It is recommended that you stop between the cognitive and affective sections. Please read the directions and do the example for each section so the students understand the purpose and marking procedures. Then read each question, and have the class proceed through the test together.

The total test should require about 1 1/2 hours to administer.

- I. IF THE EXERCISES BELOW ARE GROUPS OF SEVERAL WORDS. SOME OF THE GROUPS OF WORDS ARE IN THE ORDER IN WHICH THINGS HAPPEN IN NATURE. OTHERS ARE MIXED UP.

IF YOU AGREE THAT THE GROUPS OF WORDS ARE IN THEIR PROPER ORDER, THEN MARK "A" ON YOUR ANSWER SHEET. IF YOU DO NOT FEEL THE GROUPS OF WORDS ARE IN PROPER ORDER, THEN YOU MARK "B" ON THE ANSWER SHEET.

FOR EXAMPLE: spring, summer, fall, winter

(The correct answer is "A".) A = IN PROPER ORDER.

FOR EXAMPLE: boy, baby, man

(The correct answer is "B".) B = NOT IN PROPER OR ORDER.

1. flour, wheat, bread
2. sun, grass, cow, milk
3. thunder, lightening, snow
4. caterpillar, cocoon, butterfly
5. migrate, lay eggs, build nest
6. fruit, flower, seed
7. sewage treatment plant, water treatment plant, home

- II. BELOW ARE SEVEN PATTERNS. SOME PATTERNS ARE EFFICIENT AND MAKE THINGS WORK EASIER. OTHERS ARE NOT AND MAKE THINGS WORK HARDER.

IF YOU AGREE THAT THE PATTERN IS AN EFFICIENT PATTERN, THEN MARK "A" ON THE ANSWER SHEET. IF YOU FEEL THE PATTERN IS NOT EFFICIENT, THEN MARK "B" ON THE ANSWER SHEET.

FOR EXAMPLE: children lining up for lunch

(The correct answer is "A".) A = EFFICIENT

FOR EXAMPLE: a three legged horse

(The correct answer is "B".) B = NOT EFFICIENT

8. a traffic jam
9. fins on a fish
10. geese flying in a V formation

11. peas in a pod
12. a truch with a flat tire
13. a paddie and a canoe
14. a factory conveyer belt

3/4 - 1

AFFECTIVE EVALUATION:

THIS SECTION IS DESIGNED TO DETERMINE HOW YOU FEEL ABOUT THE ENVIRONMENT.
THERE ARE NO RIGHT OR WRONG ANSWERS. PLEASE ANSWER AS HONESTLY AS POSSIBLE.

DO NOT BEGIN UNTIL YOUR TEACHER TELLS YOU TO DO SO.

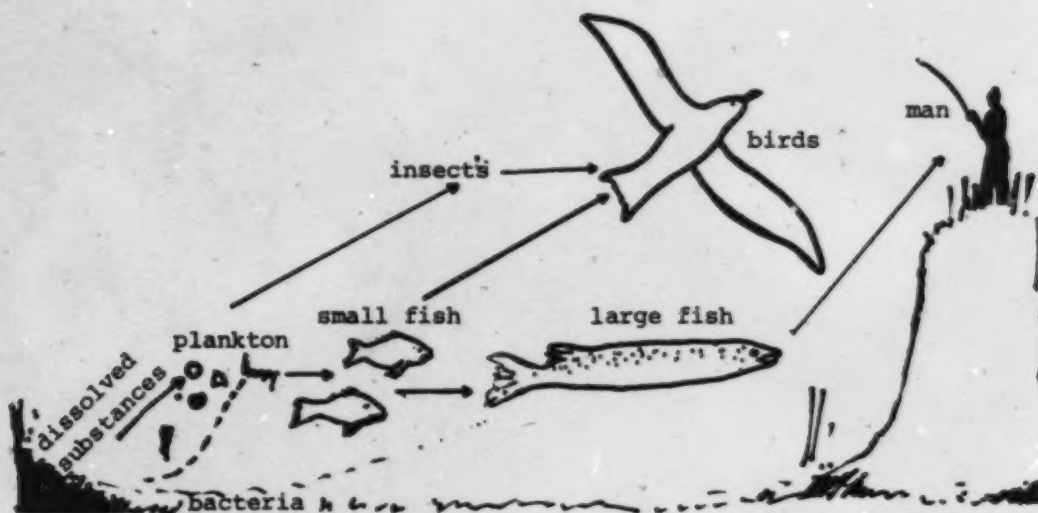
Teacher: If you read the questions to your students, please attempt to do so without biasing the student's responses because of inflections in your voice.

IX. IF YOU HAD YOUR CHOICE, WHICH OF THE FOLLOWING TV SHOWS WOULD YOU WATCH? CHOOSE ONE OF EACH PAIR YOU WOULD DO AND MARK EITHER "A" OR "B" ON YOUR ANSWER SHEET. THERE ARE NO RIGHT OR WRONG ANSWERS. THIS IS ONLY TO FIND OUT WHAT PEOPLE ARE INTERESTED IN SEEING. PLEASE ANSWER AS HONESTLY AS POSSIBLE.

51. Which would you choose?
 - A. a show about mountain climbing
OR
 - B. a show about auto racing
52. Which would you choose?
 - A. a show about deep sea life
OR
 - B. a show about Disneyworld
53. Which would you choose?
 - A. a show about a factory
OR
 - B. a show about a farm
54. Which would you choose?
 - A. a show about a real bear.
OR
 - B. a show about "Yogi Bear"
55. Which would you choose?
 - A. a show about hunting
OR
 - B. a show about canoeing
56. Which would you choose?
 - A. a show about a motorcyclist
OR
 - B. a show about a camper

IV. ON YOUR ANSWER SHEET, MARK THE LETTER OF THE STATEMENT WHICH BEST COMPLETES THE SENTENCE.

USE THIS PICTURE FOR QUESTIONS 16 - 19.



16. As shown in the picture above, the many animals:

- A. are all swimming.
- B. are of different sizes.
- C. Are either mammals or amphibians.
- D. live in the pond.

17. In order to survive, many of these animals must:

- A. learn to change color.
- B. help each other.
- C. feed on each other.
- D. ignore each other.

18. The picture shows:

- A. where to catch fish.
- B. a fish becoming a bird.
- C. dependency.
- D. pollution.

19. We can classify the different animals by the:

- A. air they breathe.
- B. the number of eyes they have.
- C. way they migrate.
- D. place in which they live.

DOCUMENT SOURCE NUMBER: 23

Title: Wisconsin University Project ICE

Reference: Final Evaluation Report Project ICE, CESA, No. 9
Green Bay, Wisconsin
Conrad Katzenmeyer and others
Wisconsin University, Madison
Research and Development Center for Cognitive Learning
May, 1975

ED 134 446 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. ICE Teacher Feedback Form

II D

sample pages

B. Parent Reaction Form

IV

sample page

ICE Teacher Feedback Form

Name _____ School _____
 Grade(s) Taught _____ Content Area _____
 (if applicable) _____

1: Overall, I would rate the following aspects of the ICE program as:

	Extremely Useful	Very Useful	Moderately Useful	Not Very Useful	Rarely Useful
ICE CURRICULUM GUIDES					
ICE AUDIO-VISUAL RESOURCES					
ICE STAFF (PERSONAL HELP)					
ICE OUTSIDE ACTIVITIES					

2. On the average, I used the ICE program _____ hours per week.

3. Overall, I would rate the ICE lessons on their appropriateness to my grade level as:

extremely appropriate very appropriate moderately appropriate slightly appropriate inappropriate

4. Of the 12 ICE concepts, the ones most usable at my grade level are:

ICE Concepts

___ 1. sun energy	___ 6. natural resources	___ 10. short term gains and long term losses
___ 2. ecosystem	___ 7. land use	
___ 3. population	___ 8. values and attitudes	___ 11. individual acts
___ 4. clean water	___ 9. man changes the environment	___ 12. stewardship
___ 5. clean air		

5. When I taught the ICE concepts, I used or adapted the objectives as found in the ICE curriculum guides:

Cognitive Objectives

always often sometimes rarely never

Affective Objectives

always often sometimes rarely never

6. When I utilized the objectives provided in the ICE curriculum guides, my students reached the objectives:

Cognitive Objectives

<u>10-20%</u> of the time	<u>20-40%</u> of the time	<u>40-60%</u> of the time	<u>60-80%</u> of the time	<u>80-100%</u> of the time
------------------------------	------------------------------	------------------------------	------------------------------	-------------------------------

Affective Objectives

<u>10-20%</u> of the time	<u>20-40%</u> of the time	<u>40-60%</u> of the time	<u>60-80%</u> of the time	<u>80-100%</u> of the time
------------------------------	------------------------------	------------------------------	------------------------------	-------------------------------

7. Overall, I would estimate that my students liked the ICE program:

<u>very much</u>	<u>moderately</u>	<u>somewhat</u>	<u>slightly</u>	<u>not at all</u>
------------------	-------------------	-----------------	-----------------	-------------------

8. I feel that the ICE program had the following effects on my students. Check all that apply.

My students:

- ☐ show an increased concern for the environment
- ☐ turn off unnecessary lights and appliances
- ☐ talk more about environmental issues
- ☐ show a greater concern for animals
- ☐ show an increased interest in watching things grow
- ☐ show an increased interest in having materials recycled
- ☐ show an increased concern for the school grounds (i.e., pick up litter, etc.)
- ☐ waste less paper
- ☐ other effects? Please comment _____

9. I plan on using the ICE lessons or activities next year. Yes ☐ No ☐
Maybe ☐

10. For implementation of the program, I feel that the ICE materials along with the inservice training I received were:

- ☐ a) total adequate
- ☐ b) of themselves sufficient, but enrichment by ICE staff members was helpful
- ☐ c) not of themselves sufficient, and required assistance from ICE staff members.

11. I estimate I used the ICE staff _____ hours per month.
12. As I became more familiar with the ICE materials over the course of the year, the amount of time I utilized the ICE staff
- ☐ a) increased
 - ☐ b) stayed about the same
 - ☐ c) decreased
13. For effective implementation of the ICE program, what kinds of personal services do you feel you as a teacher might need? Check all that apply.
- ☐ a) someone to lead field trips
 - ☐ b) someone to suggest new or altered activities
 - ☐ c) someone to suggest available audio-visual materials
 - ☐ d) someone to demonstrate or team teach some activities
 - ☐ e) someone to identify community resources
 - ☐ f) someone to help in coordinating the lessons to eliminate overlap or redundancy
 - ☐ g) other (please specify) _____
-

Parent Reaction Form

Please rate the following questions regarding your child's environmental education program. Circle "1" if you total disagree with the statement and circle "5" if you total agree with the statement; use the other numbers if your feelings are between. Please consider each statement separately.

- 1) I am familiar with the school's environmental education program.
 disagree 1 2 3 4 5 agree
- 2) My child frequently discusses issues relating to environmental problems.
 disagree 1 2 3 4 5 agree
- 3) The school is doing a good job of making my child aware of environmental problems.
 disagree 1 2 3 4 5 agree

If your child's behavior is different since becoming involved in the environmental education program, please circle "yes". If you haven't noticed any difference since the start of the program, please circle "no".

- | | | |
|---|-----|----|
| 4) My child talks about environmental problems more. | Yes | No |
| 5) My child turns off unnecessary lights and appliances. | Yes | No |
| 6) My child wastes less food. | Yes | No |
| 7) My child shows a greater concern for animals. | Yes | No |
| 8) My child enjoys nature walks more. | Yes | No |
| 9) My child conserves more water. | Yes | No |
| 10) My child shows a greater interest in watching things grow. | Yes | No |
| 11) My child shows a greater interest in having materials recycled. | Yes | No |
| 12) My child shows a tendency to waste less paper. | Yes | No |
| 13) The environmental program should continue: | | |
| disagree 1 2 3 4 5 agree | | |

Are there any other changes in your child's behavior that may have resulted from the environmental education program?

DOCUMENT SOURCE NUMBER: 24

Title: Wisconsin Project ICE

Reference: Environmental Concern Inventory Form K-4, 5-8, 9-12
Robert Kellner
Project ICE
Green Bay, Wisconsin
January, 1971

ED 055 921 (ERIC number)

Instruments:

Keyed to
Instrument
Location Index

A. Environmental Consortium Inventory Form K-4 (knowledge and attitude)	I A, I B	sample pages
B. Environmental Consortium Inventory Form 5-8 (knowledge and attitude)	I A, I B	sample pages
C. Environmental Consortium Inventory Form 9-12 (knowledge and attitude)	I A, I B	sample pages

PROJECT I-C-E
Form K-4 (1-71)

Instruction
Curriculum
Environment

(E)NVIRONMENTAL (C)ONCERN (I)NVENTORY

Developed by Robert Kellner

Project I-C-E
Serving Schools in CESA 3-8-9
Robert Warpinski, Director
1927 Main Street
Greenbay, Wisconsin 54301

Produced under Title III, ESEA Project #59-70-0135-1.

Teachers will have to fill in this section for your students.

Student Age _____ Sex _____ Grade _____

District or School _____

Teachers:

K-2 Please send the two examples below and every question for your students for clarity and control.

3-4 Note the examples given to aid students before starting the Inventory.

All Students will check the appropriate box beneath the "pictured" answer. This Inventory given early in the year and at the year's end will enable us to measure the attitudinal effect of the Project I-C-E Supplementary Curriculum Guides. You the teacher are the prime mover. Your adaptations, use, and flexible implementation of the guides within your class activities is the pivoting star around which students begin to know their environment. Thank you for your continual cooperation.

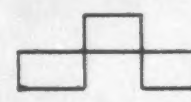
The Inventory may be easily scored by you the teacher for immediate feedback. Use our personnel for any needed analysis of the results.

EXAMPLES: (See the enclosed answer sheet.)

A. WHAT TWO THINGS DO YOU NEED TO STAY ALIVE?

 CANDY	 AIR	 SUN	 TV
--	--	---	---

B. WHERE WOULD YOU LIKE TO LIVE?

		
---	---	---

10. WHICH SOUND IS NICE TO LISTEN TO?



JET

☐

BIRD SONG

☐

SCHOOL BELL

☐

HAMMER

☐

11. WHICH FISH IS BETTER?



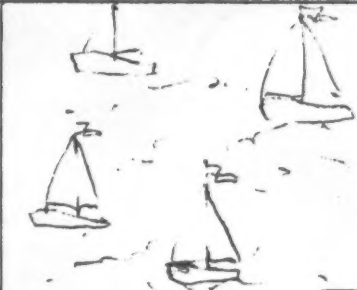
FISH A

☐

FISH B

☐

12. CHECK THE LAKE YOU LIKE FOR FISHING OR SAILING:

☐☐☐

(E)NVIRONMENTAL (C)ONCERN (I)NVENTORY

Developed by Robert Kellner

Project I-C-E
Serving Schools in CESA 3-8-9
Robert Warpinski, Director
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Green Bay, Wisconsin 54301

Form 5-8 (1-71)

Produced under Title III, ESEA Project #59-70-0135-1

DIRECTIONS TO TEACHERS AND STUDENTS: You will be given an environmental problem situation. Read the problem twice to insure your understanding of the facts and their impact. Then choose the solution which seems best for the problems described. Mark your answers on the separate answer sheet. Do not write in the test booklets.

NOTE: Problem #18 calls for two answers. Notify students of this on the answer sheet. Thus, we have (24) possible answers. Perfect score then is 96%. With this type of problem-solving quiz, the teacher can discover those kinds of problems or environmental concerns the student is aware or unaware of. Student abilities of gathering facts, comparing, finding reasons, weighing evidence, and choosing appropriate solutions--all prohibit the teacher from "teaching for the test". Ability to solve problems--whatever the situation or variables--is more important than certain "ecological principles". Applying and using these principles to solve problems supercedes the memory or multiple-guess approach.

PROBLEM #1

Pillsville dumps garbage into its river. This river runs south down to the town of Overdue. The Conservation Department must decide on what to do to Pillsville; Overdue town is complaining. What should be done?

- ☐ A. Angry warning to Pillsville, "Stop dumping!"
- ☐ B. Dumping tickets or fines along with fast built new sewers.
- ☐ C. No dumping or no new sewers for a while. Let them suffer!
- ☐ D. A warning to Pillsville and a study to find answers for now and later on.

PROBLEM #2

Farmer Tough has had good crops for thirty years. All his neighbors like him. Yesterday, the police came to tell Farmer Tough of a complaint. The school near the edge of the farmer's property blames him for bad sewers and garbage dumping. Farmer Tough does dump manure near the edge of his property, but on his property. He has sewer leaks. This has turned the school's well water smelly. The farmer and the school will go to court. You are the judge. What is your ruling?

- ☐ A. What Farmer Trough does on his property is his own business.
- ☐ B. Because the health of the school children is a serious concern, you rule that Farmer Tough must stop farming his land immediately, and force its sale to the school so that the school's water supply is protected.

- ___ C. Farmer Tough has a responsibility to relocate or correct the sewers and stop dumping manure near the school because the health of the school children is at stake.
- ___ D. The school must solve its own problems by digging a deeper well.

PROBLEM #6

Which of the following actions pollutes the air--the most?

- ___ A. Leaving the garbage uncovered outside.
- ___ B. Using a car with a poor muffler--daily.
- ___ C. Burning leaves--once a week.
- ___ D. Smoking a cigarette.

PROBLEM #7

Last year, half the deer died in your county. You are the game warden. You must choose one solution and tell your choice to the people in your county.

- ___ A. Kill the deer predators--wolf, cougar, and other killers.
- ___ B. Ask local farmers to give extra corn and food for the deer.
- ___ C. Study the whole problem and ask other game wardens what they're doing.
- ___ D. Do nothing. Let Mother Nature solve the problem.

PROBLEM #8

You and your family are moving to a new house. Pick the spot with the least amount of noise.

- ___ A. Next door to an airport.
- ___ B. Next door to a gas station.
- ___ C. Next door to a shopping center.
- ___ D. Next door to a dentist's office.
- ___ E. Next door to a railroad.

PROBLEM # 19

Which two statements do you agree with most?

- ___ A. Air cleans itself and is never polluted.
- ___ B. Air is unclean only in big cities.
- ___ C. Air is unclean over most of the world.
- ___ D. Air is unclean mostly because of planes.
- ___ E. Air is unclean mostly because of cars.
- ___ F. Air is unclean mostly because of factories.

PROBLEM #19

You've just been elected President. You can stop pollution by solving one major problem. Which is the worst problem? Stop it and you can stop the others.

- ☐ A. Water pollution
- ☐ B. Air pollution
- ☐ C. Garbage
- ☐ D. Too many poeple
- ☐ E. Too little land
- ☐ F. Too little food

PROBLEM #20

What idea do you like the most?

- ☐ A. We fight nature to survive.
- ☐ B. We must work with nature to survive.
- ☐ C. We must destroy nature to survive.
- ☐ D. We must stay away from nature to survive.

ENVIRONMENTAL CONCERN INVENTORY

Developed by Robert Kellner

Project I-C-E
Serving Schools in CESA 3-8-9
Robert Warpinski, Director
1927 Main Street
Green Bay, Wisconsin 54301

Form 9-12 (1-71)

Produced under Title III, ESEA Project #59-70-0135-1

DIRECTIONS TO TEACHERS AND STUDENTS: You will be given an environmental problem situation. Read the problem twice to insure your understanding of the facts and their impact. Then choose the solution which seems best for the problem described. Mark your answers on the separate answer sheet. Do not write in the test booklets.

NOTE: Problem #11 calls for two answers. Thus, we have essentially 25 questions. If we score 100, each problem is worth 4 points. With this type of problem-solving quiz, the teacher can discover those types of problems or environmental concerns the student is hazy on. The student's abilities of gathering facts, comparing, establishing reasons, weighing evidence, and selecting appropriate solutions--all prohibit the teacher from "teaching for the test". Ability to solve problems--whatever the circumstances or variables. The application of these principles and their use in solving problems far outweigh the memory or multiple-guess approach.

PROBLEM #1

The city of Plentyville has been dumping untreated waste materials into its river system which flows south towards other populous cities. The Department of Natural Resources has considered the following situations. As its director, which one would you choose?

- ☐ A. Severe warning to the city council to stop such dumpings.
- ☐ B. Immediate punishment in the form of fines and the instant construction of waste treatment facilities.
- ☐ C. A complete, immediate shutdown of present waste treatment plants until the city offers a plausible solution.
- ☐ D. Immediate warning and study of the problem to determine short and long term solutions.

PROBLEM #2

It is ten years from now. World population has doubled as predicted, but the world's food supply has remained the same for ten years. Over six million people starve yearly. You are the United States representative to the United Nations World Survival Committee. Your vote is crucial because it will influence other nations who follow your leadership. In fact, your vote will most likely become the rule for all participating countries. All nations--including your own--will agree to follow the Committee's solution to starvation. What's your vote for the United Nations Ten Year Plan for Survival. It would be your last.

- ___ A. Make scientific advances to increase food production to catch up with and keep pace with the population increases.
- ___ B. Set up an U.N. World Food Bank and distribute food according to population. Everyone would eat less but everyone would eat.
- ___ C. Continue to work on the problem but let natural causes (death, disease, etc.) take their toll.
- ___ D. Farm the oceans and inhabit other planets.
- ___ E. Limit population growth in all countries.

PROBLEM # 7

The city of Greenspot has doubled its population every five years. It has blossoming industries, good transportation, and natural resources--including water and minerals. The core of the city is growing in density. As one of five city planners, you must give the tie-breaking vote on using the extra 500 acres newly purchased and included in the city limits. In five years, your Greenspot population will double.

- ___ A. Use the newly annexed land for parks, man-made lakes, and general recreation.
- ___ B. Build high rise apartments to absorb the incoming population.
- ___ C. Investigate similar cities with similar conditions and problems.
- ___ D. Establish a city ordinance so that all newcomers move into the annexed area--thus taking the pressure off the core of the city.

PROBLEM #8

Which is the worst act of air pollution?

- ___ A. Burning leaves--once a week.
- ___ B. Using a car with a faulty muffler--daily.
- ___ C. Leaving the garbage uncovered outside.
- ___ D. Releasing paint fumes while painting your home's exterior.

PROBLEM # 9

Which statement do you agree with the most?

- ___ A. Man must compete with nature to survive.
- ___ B. Man must cooperate with nature to survive.
- ___ C. Man must conquer nature to survive.
- ___ D. Man must leave nature alone.
- ___ E. Man must use only a part of nature.

DOCUMENT SOURCE NUMBER: 25

Title: Colorado Springs Senior Seminar

Reference: To Learn How to Learn (Student Manual)
Senior Seminar
Mitchell High School
1205 Potter Drive
Colorado Springs, Colorado 80909

Instruments:

Keyed to
Instrument
Location Index

A. Suggestions for Journal Entries	VI D	sample pages
B. Different Styles for Writing in Your Journal	VI D	complete
C. Brainstorming Rules	VI D	complete

SUGGESTIONS FOR JOURNAL ENTRIES

If you have never kept a journal on a regular basis before, now you may have a little trouble getting started on one. Listed below are a number of solutions which may help you determine what to write and how best to write it. Keep in mind that these suggestions are flexible. You may wish to use more than one on any particular day. You may want to combine some of them into a new form. You may decide to invent one of your own.

During the next few days, you may be asked to practice some of the following kinds of entries. This will help you determine which forms are best suited to you. Remember, it will be easier to write in your journal if you have really participated in the day's activities.

1. Daily Entry: How do I spend my 24 hours? It would be helpful to include this type of entry for any day you work on Seminar so you will have a record of your block to help with evaluation.
2. Confidence Entry: Keep a barometer of your varying levels of confidence and insecurity. Explain the causes.
3. Decisions Entry: Life goes on, and if it is to get better for you, only you can change it. Record what decisions you made and when you took action.
4. Conflicts Entry: Describe some of the circumstances surrounding any conflicts you were involved in or witnessed. What were the causes? How did you react? Was it resolved? If not, could it have been resolved?
5. Current Events Entry: What is new or particularly notable in politics or business?
6. Success Entry: List days you consider successful and some things that made your day.
7. Bad Day Entry: This is a record of the events on days when it would have been better to have stayed in bed.
8. Cash Flow Entry: How did income and outflow compare today?
9. Inspiration Entry: Record deep feelings, sense of God or higher reality, spiritual or religious experience.
10. Affirmation Entry: Record the nice things done for you and said about you.
11. Depression Entry: List the things and people who may have dragged you down. Why do you feel depressed?
12. "I Gotta Be Me" Entry: Keep a record of where and how your actions showed your individuality.
13. Role Play Entry: Review your day in search of the times and situations when you were pretending, playing a role rather than being openly and honestly you.

14. Special Moments Entry: List the persons or situations that evoked affectionate feelings and thoughts because they were pleasant, intimate, and thoughtful.
15. Anger Entry: Some people and situations spawn anger and even hatred. Keeping a record may reveal a pattern.
16. I Learned Entry: Are you growing? This record may give you a hint.
17. Don'ts Entry: None of us likes to repeat mistakes. List people, places, food, etc., that may be things to avoid for you.
18. Dream Entry: What was your dream? Why did you dream about that? What things from your daily life show up in your dreams? What might the dream mean?
19. Quote Entry: Record a quote which seems neat or meaningful. If you do not completely understand it, paraphrase it first. What does the quote mean? Can you give examples or explain the quote? Do you agree or disagree with the ideas? What does the quote have to do with me?
20. Visual Entry: Draw a picture about the day. Take time to paste a few things (pictures or words) into the journal.
21. Poetry Entry: Capture the day or an experience in images of poetry.
22. Free Association Entries: Put down one idea. What does it make you think of next? What next? It's a chain of thoughts.
23. Newspaper Article Entry: Report an experience or the ideas of a speaker in the form of a newspaper article complete with headline.
24. A day of Questions Entry: Write down questions which came up during the day. You may wish to try to answer some of them or just leave them as questions.

DIFFERENT STYLES FOR WRITING IN YOUR JOURNAL

Each of the styles below could be used for any of the twenty-four entries listed above.

1. Monologue: Talk to yourself--explain your day's events, feelings, thoughts and actions to you.
2. Role Play Monologue: Write a daily entry for someone you met or read about. What would his/her journal be like? What would it describe? How would it be written? Be sure to make a note to yourself about who you are role playing so you do not confuse yourself later.
3. Dialogue: Write your entry as a conversation. It could be between you and another person (an interview) or two other people. This might be difficult at first but it might make an interesting change of pace.
4. Variety of Styles: Try writing the same information or ideas in two or three styles--official/legal, humorous, stuffy/big words, a child. You might wish to imitate the style of certain authors for different entries, too.

BRAINSTORMING RULES

1. Set a specific time limit. Do not go beyond 20 minutes. Ten minutes is optimum.
2. Record all ideas on a board everyone can see. If one person does not hear the idea, he/she might react to seeing it. Most good ideas feed off not to good ideas. A word or phrase may trip the switch in another person's head. Appoint a recorder.
3. Say whatever comes to mind (if it even faintly applies to the subject). No matter how far out your idea is, it might jog somebody else into more practical thought.
4. Do not criticize any ideas. Set aside time afterward for evaluation, but never evaluate during the brainstorming session itself. Call anyone who tries to evaluate your idea.
5. Have a specific topic to brainstorm. (e.g., things to write in a Seminar Journal, not just things to write).
6. Follow up the brainstorming session with a discussion evaluating the ideas recorded on the board. If there is a delay before this discussion is held, someone might forget what they meant by "journal entry."